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LABOUR MARKET ASPECTS OF STATE ENTERPRISE REFORM IN CHINA

by

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TABLE OF CONTENTS

RÉSUMÉ

A mesure que la réforme des entreprises publiques s’est accélérée en Chine au cours des dernières années, une part croissante de la main–d’œuvre s’est trouvée « superflue ». Les licenciements n’ont concerné jusqu’à présent qu’une faible part des travailleurs excédentaires — qui pourraient représenter 20 à 25 pour cent de l’emploi industriel total dans les entreprises du secteur public. Ce choix d’une approche progressive de la restructuration a été justifié par des préoccupations de stabilité sociale. Mais le poids de la charge budgétaire et financière des entreprises publiques déficitaires est tel que le processus s’est accéléré. Il faut sans doute s’attendre à l’avenir à des licenciements de bien plus grande envergure.

Le développement du secteur non étatique s’est traduit par l’apparition de nouvelles opportunités d’emploi pour certains travailleurs licenciés du public. Une telle croissance du secteur non étatique est l’une des principales conditions d’une restructuration en douceur des entreprises publiques, justement parce qu’elle facilite la réembauche des travailleurs en surnombre. Éliminer les discriminations restantes à l’encontre du secteur privé, notamment dans l’accès au crédit bancaire, et supprimer les restrictions qui empêchent les entreprises non étatiques d’entrer dans des secteurs industriels encore monopolisés par les entreprises publiques comptent parmi les mesures susceptibles de favoriser le développement du secteur privé. De même, faciliter les accords de *joint ventures* entre les entreprises publiques et des entreprises étrangères ou du secteur non étatique pourrait contribuer à la restructuration des entreprises publiques et au réemploi des travailleurs en surplus.

La réforme de la sécurité sociale est une autre priorité. Pour accroître la mobilité de la main–d’œuvre, et donc la flexibilité du marché du travail, le système de sécurité sociale doit être désolidarisé de l’entreprise et couvrir à terme le secteur public et non étatique. La mise en œuvre d’un filet de sécurité socialisé se heurte néanmoins à la rareté des ressources financières (du gouvernement et des entreprises publiques) et à la réticence du secteur non étatique à supporter le coût de la protection des employés et des retraités du secteur public.

Enfin, il sera nécessaire de mettre en place des formations subventionnées pour les chômeurs. Ces programmes de formation, quels qu’ils soient, doivent répondre aussi précisément que possible aux besoins du marché du travail. Aussi est–il sans doute plus efficace d’appuyer les efforts de formation du secteur privé que de développer des organismes publics de formation.

SUMMARY

In recent years, as China's reform of state–owned enterprises (SOEs) has gathered momentum, the number of workers made redundant has been rising. Until now, the dismissals have affected only a fraction of the "surplus labour", which has been estimated at 20–25 per cent of total industrial employment in SOEs. If concerns for social stability have so far dictated a gradual approach to SOE restructuring, the heavy fiscal and financial burden of loss–making SOEs has forced an acceleration of the process. Thus, far more sizeable layoffs from state enterprises could be expected in coming years.

The growth of the non–state sector has opened new job opportunities for some SOE laid–off workers. By easing the re–employment of redundant workers, a further development of the non–state sector is an important condition for a smooth restructuring of the state sector. Measures to promote further development of the non–state sector include removing remaining discrimination against the private sector in access to bank credit and removing remaining barriers for non–state enterprises to enter industries still monopolised by SOEs. Also, encouraging more joint ventures between SOEs and foreign or domestic non–state firms would help in restructuring SOEs and re–employing surplus workers.

Another key area of intervention is social security reform. A social security system de–linked from the individual enterprise and ultimately covering both the state and non–state sector is crucial to increasing labour mobility, hence labour market flexibility. Implementation of a socialised safety net faces the problems of limited financial resources (whether from government or the SOEs) and reluctance of the non–state sector to bear the costs of providing for state–sector workers and retirees.

Finally, expansion of subsidised training for the unemployed will also be needed. As with all such training programmes, it is important to target the training as closely as possible to the needs of the job market, which is more likely to mean encouragement of greater private sector training effort than expansion of government training institutions.

PREFACE

The past two decades have seen important efforts aimed at state enterprise restructuring in China. With the share of surplus labour in state–owned enterprises estimated to be as high as one–fourth of the workforce, concerns about the employment implications have weighed heavily in government's thinking about the appropriate pace of reforms. The fact that social welfare payments and benefits of various kinds, e.g. pensions, medical care and housing, have been traditionally tied to employment in a specific enterprise has complicated the reform process and limited labour mobility.

This study provides an analysis of the major labour–market aspects of state–owned enterprise reform. It considers how Chinese state–owned enterprises have been coping with the problems of labour redundancy in the face of hardening budget constraints. It also examines the progress and pitfalls of social welfare reform seeking to de–link pensions, medical care and other benefits from individual enterprises and to make them financially sustainable.

The speed with which the non–state sector is developed will influence state–owned enterprise reform in several ways: *i)* as a source of new jobs; *ii)* as a competitive stimulus for state enterprises to operate more efficiently; and *iii)* as a source of revenue to finance a social safety net for displaced workers. The new leadership in China appears committed to moving ahead with state–owned enterprise (and state sector) reform as swiftly as possible: however, both the rate of employment growth in non–state enterprises and progress in socialising the safety net are likely to play a large role in determining the pace of these reforms. Moreover, while the ramifications for China of the Asian financial crisis are not yet fully understood, the crisis will not make reform any easier.

This study has been conducted in the context of the Development Centre's 1996–98 programme of work on The Reform and Growth of Large Developing Countries. The theme of state enterprise reform in China and other large developing countries is to be explored further in the Centre's 1999–2000 programme of work.

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President
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I. INTRODUCTION

Starting in 1978, a wide range of economic reforms has been implemented in China in order to transform the centrally planned system into a "socialist market economy". A priority area of reform involves state–owned enterprises (SOEs). Although improvements have been registered by some SOEs since reforms began, the overall performance of this group of enterprises has continued to deteriorate due to three main causes: technical and managerial inefficiency, an excessive burden of social welfare payments to workers, and a high proportion of redundant workers. The three aspects are connected. To improve efficiency, redeployment of labour is necessary. This task is difficult to achieve, however, under the current enterprise–based safety net, which links workers to their enterprises for the provision of many social services, from housing, to medical care, to pensions.

Redundant workers, or "surplus labour", represent a key issue in SOE reform, one which has been influencing the pace of reform. Prevailing social values, but also concerns over social stability, have suggested the need to accommodate the reduction of the SOE work force to a) the creation of a common (or 'socialised') social security system to replace the enterprise–based one, and b) the existence of other job opportunities for the dismissed workers.

With respect to the first aspect, pension reform is a top priority. Thus far, there have been some promising local experiments in pension design, although optimal solutions are still under study. Reform in the areas of health care and social assistance has also started but is less advanced. As for the second aspect, the progressive expansion of the non–state sector, made up of joint ventures, foreign enterprises, shareholding companies, etc., has in fact opened up new job opportunities. Indeed, employment in the non–state sector has accounted in recent years for almost half of total urban employment. From 1990 to 1996, total urban employment growth was 3 per cent, while the rate for the non–state sector was 5.3 per cent.

A growing number of studies has examined the above themes, in at least three different contexts: studies focusing on the organisational and financial aspects of the SOE reform; thematic studies on pensions, the health care system and social security; and studies on the Chinese labour market, centred on the urban/rural segmentation of the labour market, rural–urban wage differentials and the different rules governing the two markets.

The present paper reviews measures of labour force restructuring and social security reform put in place to accompany the SOE reform. It begins with an overview of the state sector and its place in the economy, then traces the evolution of the employment system, particularly in the urban state sector, noting the magnitude of the surplus labour problem and some of measures aimed at relieving the problem. Next, it examines the problem of the enterprise–linked safety net and various experiments in de–linking. Finally, it enumerates future policy priorities for dealing with the labour market implications of SOE reform.

II. CHINA'S STATE SECTOR

The Pre–Reform Period

Under the centrally planned system, industrial state–owned enterprises were completely subordinated to higher authorities who dictated their production plans. The working of the system can be synthesised in three movements: SOEs accessed investment funds and material inputs through the state distribution system; undertook production according to state plans on quality and quantities; and, finally, delivered goods to state commercial agencies at fixed prices.

Managers and workers were assigned to SOEs by the government. Employment was lifetime guaranteed. Bankruptcy was not allowed, neither was takeover or capital restructuring with non–state owners.

By comparison with the Soviet model of planned economy, what made the Chinese state sector different were two main characteristics:

i) Although the state sector dominated in most industries in terms of output, employment in the state sector was only a rather small proportion of total employment — never larger than 20 per cent. The majority of the labour force worked in agriculture: employment in the agricultural sector still accounted for 50 per cent of the total in 1996 (see Table 1).

This feature explains why China has been successful in pursuing an "incremental approach to reform" that is characterised by the gradual development of the non–state sector without dismantling the state sector at the beginning of the institutional transformation.

ii) In the pre–reform era, local governments (provinces, cities, and counties) possessed some decision–making power, although sometimes very limited. There was an administrative distinction between "central SOEs", mainly large and medium–sized, and "local SOEs", mainly medium and small–sized. Over some periods, such as 1957–58 and 1969–70, the central government to a great extent decentralised decision–making power on investment and production to provincial governments.

In the reform era, China has pursued further deconcentration and delegation of government authority, notably in the area of public finance ("fiscal federalism"). Thus, China's reform has taken place in a rather decentralised way, involving considerable local government experimentation.

The SOE Reform Process

The reform programme of state–owned enterprises is intended to achieve two main objectives: first, to increase enterprise autonomy, with the aim of improving performance of industrial SOEs; second, to modify state ownership itself, in order to create and diffuse new forms of ownership. We can broadly associate the two aims respectively with an initial period of reform, from 1978 to 1987, and a second phase which started in 1988 and

Table 1. **Employment Indicators**

million persons	1980	1985	1990	1993	1996
Total employment	**423.61**	**498.73**	**639.09**	**663.73**	**688.5**
Urban employment	105.25	128.08	166.16	175.89	198.15
as a per cent of total	*24.85*	*25.68*	*26.00*	*26.50*	*28.78*
Rural employment	318.36	370.65	472.93	487.84	490.35
as a per cent of total	*75.15*	*74.32*	*74.00*	*73.50*	*71.22*
Staff and Workers[a]					
1. State-owned units[b] (SOUs)	80.19	89.9	103.46	109.2	109.49
as a per cent of urban	*76.19*	*70.19*	*62.27*	*62.08*	*55.26*
as a per cent of total	*18.93*	*18.03*	*16.19*	*16.45*	*15.90*
2. Urban collective (UC) units	24.25	33.24	35.49	33.93	29.54
as a per cent of urban	*23.04*	*25.95*	*21.36*	*19.29*	*14.91*
3. Other units[c]		0.44	1.64	5.36	9.42
as a per cent of urban		*0.34*	*0.99*	*3.05*	*4.75*
Employees in non-agricult. activities	132.39	187.43	254.82	289.39	340.81
as a per cent of total	*31.25*	*37.58*	*39.87*	*43.60*	*49.50*
Employees in TVEs	29.99	69.79	92.64	123.45	135.09
as a per cent of rural	*9.42*	*18.83*	*19.59*	*25.31*	*27.55*
as a per cent of total	*7.08*	*13.99*	*14.50*	*18.60*	*19.62*
Urban unemployment	5.415	2.385	3.832	4.201	5.528
Unemployment rate[d]	*4.9*	*1.8*	*2.5*	*2.6*	*3*

a. Also defined as formal employees.
b. ‘State-Owned Units' includes government enterprises, institutions and organisations at local or central level.
c. ‘Other units' includes share-holding companies, joint-ventures, foreign-owned enterprises and overseas Chinese companies.
d. Official unemployment rate.

Source: *China Yearbook of Labour Statistics*, 1997.

accelerated in 1994. A characteristic feature of reforms is that they have been introduced almost always in a gradualist and incremental way. Also, reforms have often been “experimented” first in certain regions, and then replicated on a larger scale.

In the first period, the reform programme proceeded by expanding SOEs’ autonomy without changing the state ownership structure. The SOEs acquired progressively more autonomy in determining production, sales, finance and investment. This limited autonomy gave good results, with both output and the total volume of delivered profits increasing.

The major device providing SOEs with more autonomy was the *Contract Responsibility System* (CRS), introduced in 1985 as a programme to invest the managers of SOEs with greater decision–making power on a wide range of matters, including production planning, sales, pricing and wage–bonus setting. Under this system, managers sign contracts with the government for the payment of fixed amounts (instead of “rates”) of taxes and profits to the state. The rest of profits may be retained and used according to managers’ decisions. Profit retention has created a major incentive for managers to improve SOEs’ performance.

Also, workers benefited from this system, because of the possibility of assigning the retained profits to bonuses or to workers' welfare funds. In addition to that, their employment was still secured, because no reduction of employment was required by any contracts. The CRS did, however, give SOEs an incentive to limit hiring new workers. In effect, the CRS made the workers employed in an SOE into an interest group intent on limiting new entry into SOEs.

The system entailed one major drawback. The state as capital owner effectively forfeited significant control over the allocation of capital, while still bearing the risks. Contracts may be made on "reduction of losses", but the penalty for not meeting the targets would only involve, for managers, a bonus reduction. Indeed, no one in the SOEs represents the interests of owners. While the autonomy of managers and workers has been enlarged, the rights of the capital owners have been actually weakened under the unchanged state ownership, creating problems of "insider control". This is reflected in increases of the wage bill (including wages, bonuses, fringe benefits, managers' expenses, and various types of "enterprise–funded consumption") not commensurate with increases in labour productivity.

In addition to that, the mechanism of *soft budget constraints* remained unchanged. The soft budget constraint allowed SOEs to be bailed out by the government with subsidies and soft loans from state–owned banks. The practice by the government of channelling most bank credit into state enterprises has produced billions of yuan of bad debt, which is now one the main problems of the Chinese economy.

In parallel with the implementation of the contract responsibility system, an important measure for labour management was adopted in selected enterprises in the early 1980s, and extended nation–wide in 1989: the *optimal labour reorganisation scheme*, designed to identify, and then reduce, surplus labour in SOEs.

At the level of an individual enterprise or establishment, the optimisation scheme seeks to assess the number of workers needed. The Ministry of Labour has accepted three different concepts of surplus labour, for a given technological capacity: employment in excess of the enterprise's *profit–maximising level*; employment in excess of enterprise's *maximum labour productivity*; and employment in excess of the enterprise's *maximum production*. Depending on the concept employed, the computation of surplus labour results in different estimates. The third criterion, relying on maximum production capacity and therefore giving the smallest number of surplus workers, has been the one more commonly used by enterprise managers. While estimates of surplus labour are problematic, and according to various sources ranged in the early 1990s from 10 to 30 per cent of total workers in SOEs, it is certain that redundant labour represents a significant share of employment[1]. According to the most recent estimates, Chinese officials assess surplus labour in some SOEs at between one third and one half of the work force[2].

In support of labour reorganisation, in April 1995 the State Council adopted a circular officially recognising the Re–employment Project which the Ministry of Labour had launched 2 years before on an experimental basis in a selected group of cities. The Project is meant to help redundant SOE workers find new jobs (see discussion below).

The restructuring of SOEs has most likely had a positive impact on total factor productivity (TFP) growth. There is no agreement, however, on the size of TFP improvements in the state sector during this first period.

Chen *et al.* (1988) estimated a 5.2 per cent gain in SOEs' TFP from 1978 to 1985. Jefferson *et al.* (1992) found a positive TFP growth of 2.4 per cent per annum in SOEs between 1980 and 1988. Perkins *et al.* (1993) also found positive TFP growth of 3.8 per cent per annum in SOEs during 1980–89 in the Xiamen special economic zone.

These results have been questioned, however, by some researchers. For example, the study by Woo *et al.* (1994) shows that estimates of TFP growth are extremely sensitive to the use of appropriate input and output deflators. They argue that Jefferson *et al.* over–estimate SOEs' TFP growth due to the use of capital stock and material input deflators that are substantially higher than the deflator for industrial output. Excluding materials from the production function and deflating value added with the output price deflator leads to insignificant estimates for TFP growth. The same conclusion is reached in a study by Hay *et al.* (1994), using the data of 700 SOEs between 1980 and 1988. The study indicates that the growth of SOEs has been largely through factor accumulation.

In the second period (beginning in 1988), reform of SOEs entered a new phase. Although the partial success of the reforms so far implemented was acknowledged, it became evident that without a radical change in the state ownership system further progress was not going to be achieved.

At the end of 1993, a programme which emphasised ownership reform of state enterprises was adopted by the third plenary Session of the 14th Congress of the Chinese Communist Party. The "Decisions on Issues concerning the Establishment of a Socialist Market Economic Structure" put the following reform policies on the agenda, without giving details of implementation:

— transforming SOEs into a modern enterprise system, with redefinition of the ownership of state assets and the distribution of rights between enterprises and the state[3];

— diversification of ownership structure of the enterprises by inviting more non–state ownership;

— creating a competitive market (or 'level playing field') for state and non–state enterprises;

— speeding up the social security system reform by separating social welfare functions from the enterprises.

Corporatisation is indicated as a favoured method of enterprise reform. State ownership is to be maintained in key industry and infrastructure sectors, but most SOEs are to be converted into corporations with clearer definition of property rights and transferable ownership. (The slogan for the SOE restructuring is 'grasping the large and letting go the small'.) Other forms of ownership are encouraged as well as diversification of enterprise ownership.

These principles were reaffirmed during the 15th Congress of the Chinese Communist Party, in September 1997. At that time, a new policy formulation emerged in the speech of the President Jiang Zemin: a socialist state does not need to have the state sector as the predominant actor in the economy to maintain its socialist nature. This declaration has given the Chinese government the impetus to pursue further reduction of the state sector, not without the strong opposition of some constituencies in the country.

Most of the measures pertaining to the transformation of SOEs into modern enterprises, along the lines of the corporate model, have yet to be implemented. Meanwhile, *de facto* restructuring of SOEs has occurred through a wide spectrum of channels, from mergers and joint ventures, through divestiture of some small and medium–sized SOEs and sale to foreign and domestic private investors, to the formation of 'stock co–operatives' under employee/manager ownership. (Bankruptcy remains a last resort.) The early experiments in 'privatisation' have occurred mostly at the county and city levels, involving smaller SOEs. Among the pioneering counties were Yibin of Sichuan, Shunde of Guandong and Zhucheng of Shandong, which began significant SOE ownership restructuring as early as 1992 (Cao *et al.* 1998). Since 1994 the phenomenon has become more widespread.

The government's need to balance the objective of improving enterprise efficiency against that of maintaining social stability has influenced both the pace of restructuring and the preferred methods. This helps explain the emphasis on local experimentation before replication on a national scale; also the attraction of "stock co–operatives", at least in the case of small–scale SOE privatisations. By making employees shareholders, this approach secures their support for enterprise restructuring and gives them a personal stake in improving enterprise performance.[4] According to recent surveys, this is by far the most popular method of small SOE restructuring: after privatisation, some 40 per cent of small SOEs are stock co–operatives in Jilin, 50 per cent in Shandong, 60 per cent in Jiangsu, and 80 per cent in Henan (Institute of Economic System Reform, 1997, and You and Wang, 1997, both cited in Cao *et al.* 1998).

Mergers. For the most part, the government's policy has been to sell or merge small and medium enterprises, and the unprofitable and loss–making large enterprises. A great number of mergers between SOEs were arranged by government fiat between a profitable enterprise and a loss–making one in order to save the loss–making enterprises, reduce the number of loss–making enterprises in a region or an industry, and redeploy workers from loss–making enterprises. Profitable enterprises were asked not only to invest in and re–organise the loss–making ones, but also to take charge of social services of all workers involved. In some cases, such mergers caused deterioration of the financial situation of the profitable enterprises. They did, however, contribute to labour re–allocation or, at the very least, prevent open unemployment.

Among the largest and most profitable SOEs, some five hundred are the target of a plan intended to create competitive conglomerates able to confront international competition. This policy is presently at the centre of a political debate. Some sceptics point to the risk that these conglomerates may not achieve their declared purpose (e.g., to realise economies of scale and of scope), but rather strengthen the political power of interested parties — for example, local governments[5]. Also, China's drive to establish conglomerates comes at a time when the Korean *chaebol* model faces a crisis of legitimacy in the country of its birth.

Joint ventures with foreign investors. Joint ventures have been an effective method for economic and institutional restructuring of SOEs. Surplus labour of the state partner is one of the major constraints to arranging joint ventures. The government, at central or local level, usually asks investors to take the responsibility for re–employing a portion of the workers or compensating laid–off workers. Cases of joint ventures have been set up with the following types of arrangement for surplus labour:

— Including in the joint–venture deal a lump–sum payment for retraining programmes in order to help current workers to be employed by the ongoing joint venture or to be suitable for other opportunities; or

— Including a direct compensation payment in the deal for workers who are going to be laid off and become unemployed. The costs of entry into joint–ventures are sometimes high because of the compensation for laid–off workers.

In most cases, while a portion of the enterprise and a portion of its work force are transferred to the new joint–venture corporation, others stay with the old SOE which takes responsibility for labour re–arrangement.

The new government policy enunciated at the 15th Congress seeks to make foreign investment in SOEs or acquisition of their assets more attractive. State banks are in some cases writing off bad loans for equipment, so that machinery can be sold at more competitive prices. Restrictions on foreign participation (no more than 30 per cent in some cases) in ventures with large and medium state enterprises in certain sectors remain, while in other sectors there are more degrees of freedom. In most cases though, the problem remains that foreign investors are normally minority shareholders and have correspondingly limited management control. For the purpose of acquisition, medium and small enterprises are more easily available after bankruptcy, or after bank write off of their debts, but the minus is that most have few or no useful assets.

Bankruptcy. In 1988, the first "Law of Bankruptcy of State Enterprise" was passed by the National People's Congress and the first case of bankruptcy of a SOE was filed in Liaoning province. In the next couple of years, however, almost no bankruptcy of SOEs took place nation–wide.

The two major arguments against bankruptcy are unemployment and debt. As for dismissal of workers, it is reasonable that under the enterprise–linked welfare system SOE bankruptcy faces great resistance from workers, until other SOEs agree to take charge of laid–off state workers.

With respect to enterprise debt, the resistance to bankruptcy comes from the creditors, mainly the state banks, which fear that bankrupt enterprises will be exonerated of all their debts. Banks have therefore preferred to keep enterprises' debts on their balance sheets, rolling them over at maturity. This allows banks to claim the renewed debts as new lending.

The central government adopted in 1994 a more detailed regulation on financial arrangements for bankruptcy. It states that provision for workers should be the first priority in any case of bankruptcy. The revenue from sale of land previously used by the bankrupt enterprise should be first used for reallocation of workers and only the remaining part of the revenue should be used for debt liquidation. If the revenue is not enough for retraining or compensation of workers, revenues from the sales of other assets should also be allocated to cover work force adjustment costs.

Most recent data on the number of SOEs declaring bankruptcy indicate a fall in 1997 compared to the previous year, when a peak of 6 222 cases was registered (EIU 1998). The fall, however, is likely due not so much to improvements in the financial position of the SOEs as to the resistance to widespread enterprise bankruptcy on the part of state banks.

Divestiture. One way to place employees with new undertakings and write off debts is so–called "extrication". Typically, the SOE uses part of its land, workshops, facilities and labour to set up new companies, by itself or jointly with others, including private and foreign investors or as a shareholding company with workers' shares. In the beginning, the new company is linked to the old one, but later on it may register as an independent company. In this way, the debts remain with the old enterprise and the new one is free from responsibility to repay the old debts. One SOE may generate several new enterprises, and eventually stop any economic activity of its own, retaining only its debts and some surplus labour.

Normally, a large share of SOE employees is redeployed to the new companies. They can carry their welfare entitlement with them because they are still considered state employees. The employees who remain with the old SOEs are the only redundant workers for whom provision must be made.

The financial performance of SOEs has been deteriorating in recent years. Since 1995 the losses of industrial SOEs as a percentage of GDP have been rising, after 4 years of continued reduction from 1991 to 1994. In 1996, they amounted to 1.15 per cent of GDP, with half of industrial SOEs incurring net losses. This trend of falling profits and increasing losses for SOEs has continued through 1997 (EIU, 1998). The financial situation of these loss–making enterprises is likely to worsen in the coming years, because of the government's decision not only to reduce direct fiscal subsidies to SOEs but to tighten control over subsidised credit. However, it is also possible that some of the new fiscal measures adopted by the government to facilitate SOE restructuring (such as corporate income tax credits and deductions) would result in new forms of subsidies (World Bank,1997*a*).

Why has SOE profitability been falling?

There are four main explanations:

— *Wage drift.* Decentralisation and increased SOE autonomy have weakened the position of the residual claimant, the state, to the profits of SOEs, strengthening the claims of managers and workers. Fan and Woo (1993) show that, when SOE revenues have increased (possibly due to improvements in productivity), various forms of income for managers and workers (some of them counted as "non–wage costs") have increased more rapidly while profits have fallen relatively or even absolutely.

— *Increasing competition.* The entry of non–state enterprises into the market has reduced the monopoly profits once enjoyed by SOEs. While this factor should be taken into account, it should be noticed that the competition is a two–edged sword: it breaks down SOEs' monopoly power but at the same time provides them with a market environment more conducive to the improvement of their efficiency and may therefore have a positive effect on the profitability of some.

— *The social burdens of enterprises.* SOEs in China take responsibility for employment of a sizeable share of the urban population, their retirement pensions, medical care, housing and other social benefits such as kindergartens, schools, and urban infrastructure, which elsewhere are provided either by government or through the market. Social expenditures have represented a growing burden in recent years because of the increasing number of pensioners relative to active workers. For some enterprises, these social expenses are becoming unaffordable in face of competition from new firms free from them.

— *Old technology.* For a long time under the state ownership and planning system, most of SOEs' profits and capital depreciation funds were appropriated by the state and used to build new plants. As a result, many SOEs are still using technology of the 1950s with little upgrading.

SOEs and the Non–State Sector

As mentioned above, a major difference between China's enterprise reform and reforms in the Former Soviet Union and in Central and Eastern European countries has been the intent in the former to maintain state ownership, at least of certain enterprises, while encouraging at the same time the development of a non–state sector.

The state sector remains the main investor in the economy. In 1996, state sector investment in fixed assets still represented more than half of total investment. Also, the number of state employees expanded from 80 million in 1980 to 113 million in 1996. The share, however, of state employees in total employment has slightly decreased, from 19 per cent in 1980 to 16 per cent in 1996. As a share of urban employment, the decline has been far more dramatic: in 1980 the state accounted for over three–fourths of urban employment, while by 1996 it represented only about 57 per cent.

Over the past decade, China's state sector has given way to the expanding non–state sector, which accounted for more than 70 per cent of industrial output in 1996 and employed 40 per cent of total manufacturing employees (see Figure 1). The non–state sector consists of collectively–owned enterprises in urban areas and in rural areas (township and village enterprises, or TVEs)[6]; private enterprises, which are family or individually owned private entities; and "other" types of enterprises, which include foreign–owned enterprises, joint–ventures with foreign companies, enterprises funded by overseas Chinese and shareholding corporations.

In the agricultural sector, the ownership reform started at the beginning of economic reforms: over the period 1979–83 the collective "commune" system was replaced by household farming[7]. This made a major part of the agricultural sector, which accounted for over 30 per cent of GDP at that time, *de facto* private and out of state control in many respects. Farmers were entitled to decide about the use of both their "contracted land" and their labour. Small private businesses (such as private transportation, retailing, crafts) and the TVEs began to proliferate. The TVEs, which in 1996 accounted for over 27 per cent of total industrial output and for 28 per cent of employment in rural areas, are a transitional form with often vaguely defined ownership; they are experiencing dramatic institutional changes[8] and many are likely to become shareholding companies. The local governments see privatisation as a solution to insolvency and/or to a lack of competitiveness, especially for those enterprises operating in low value–added or low quality manufacturing, and many are selling their stakes in TVEs (EIU 1998).

One important factor underpinning changes in ownership structure are increasing capital inflows and growing foreign joint ventures, notably with investment by overseas Chinese. By virtue of their family connections, overseas Chinese investors enjoy privileged access to Chinese markets and invest mostly in the non–state sector.

China's progress in development of a market system and its rapid economic growth have been mainly due to the dynamic expansion of the non–state sector. This not only has changed the structure of the economy, but has also created a more competitive environment for state enterprises.

The state sector still dominates in heavy industry, while non–state enterprises have developed first in more labour–intensive light industries. This trend is reflected in the decreasing shares of output by SOEs in light industry since 1978. Moreover, there has been a tendency for heavy industry and light industry (hence state and non–state industry) to develop in different geographic areas. Before 1949, industrialisation in China took place mainly in the Southeast (Shanghai and Jiangsu) and Northeast ("Manchuria"). During the time of centralised socialism, most large and medium–sized plants were built in the Northeast (with the assistance of the Soviet Union) and Northwest, including some remote interior regions (the so–called "Third Frontier") such as Sichuan, Hubei, Jiangxi, Shaanxi, and Guizhou, under the strategy of "preparing for war". Still, the area around Shanghai remained the industrial heartland and some new investment was made there.

The development of non–state, labour–intensive manufacturing industries took place first in the South and Southeast regions such as Jiangsu, Zhejiang, Fujian and Guangdong, due to their high population densities, historical business traditions, accessibility to international markets, and links to overseas Chinese business networks.

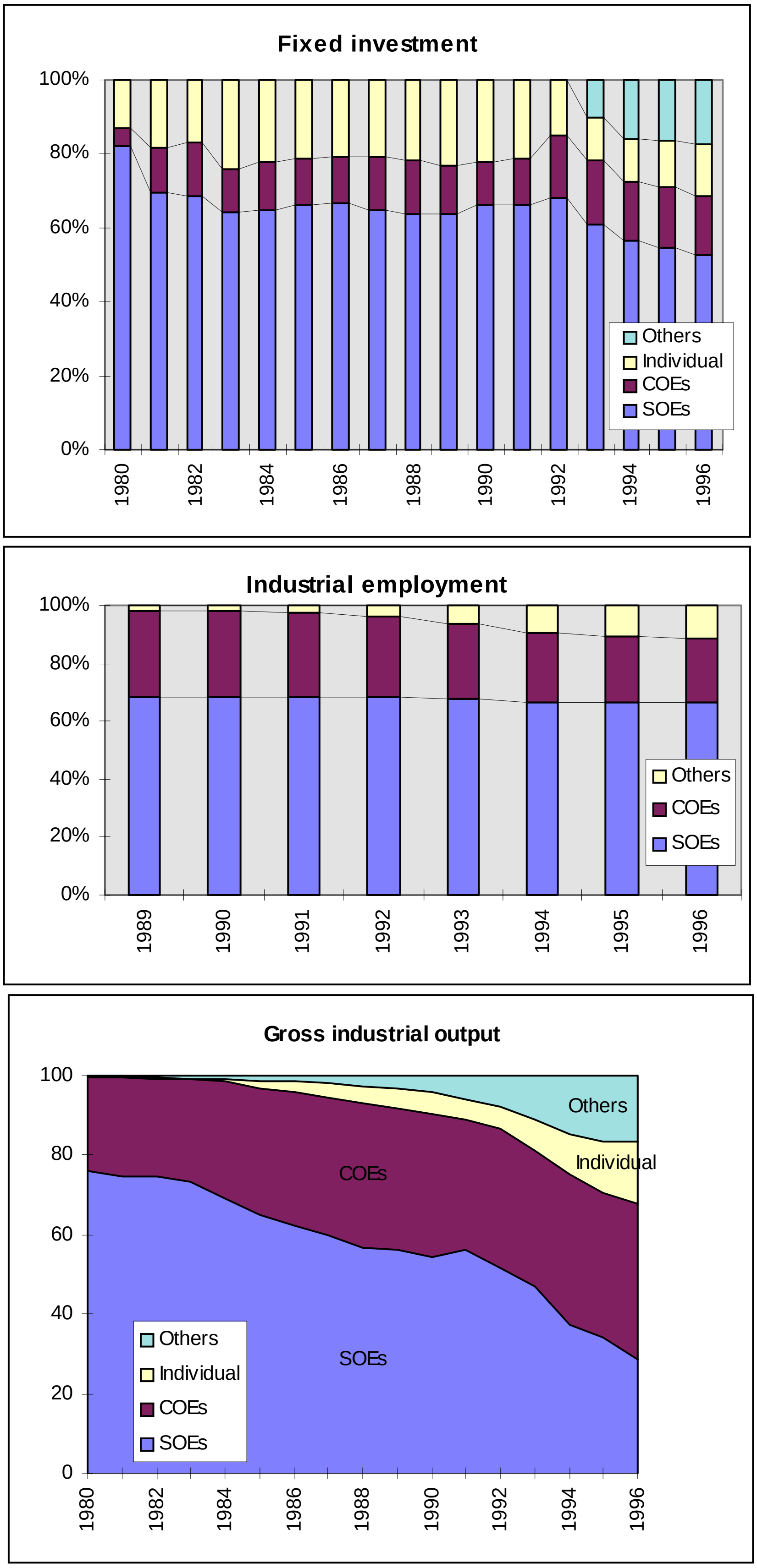
According to Fan (1995), there is a loose negative correlation between the initial concentration of state enterprises in a region or province and the rate of growth of the non–state sector (and of the overall regional economy). This presumably reflects in part the unsuitability of those areas to the development of labour–intensive, export–oriented industries. In some cases, it may also reflect local protection of state industries.

In 1996, several provinces with a high percentage of state employees among urban workers [Xizang (93 per cent), Xinjiang (90), Qinghai (87), Guizhou, Ningxia and Yunnan (85 each), and Guangxi (83)] were among the least–developed regions. Coastal regions, which have made more progress in market–oriented reform and opening and have seen greater development of the non–state sector, have a lower proportion of state employees (Jiangsu, 64 per cent, Fujian, 62, and Guangdong, 61). In a few regions where many state–owned large–sized enterprises were built in the past, non–state enterprise development has nonetheless been strong, with state employees accounting for just over two–thirds of urban employment in 1996: Liaoning, Shanghai and Tianjin (see Table 2).

In terms of industrial output, SOEs are most dominant in the following industries (all with state shares of 75 per cent or more): tobacco processing; timber and bamboo; petroleum and natural gas extraction; production and supply of gas; petroleum processing; tap water; and electricity (see Table 3). In terms of employment, the most heavily state–dominated sectors are mining, public utilities, and research (see Table 4). High proportions of state employees are also found in heavy industry (such as steel mills, machinery, chemicals). Overall, almost three–fourths of urban staff and workers were state employees at the end of 1996 (this excludes the self–employed and informal sector).

Non–state businesses, including TVEs, joint ventures, and private firms, have developed mainly in light manufacturing industries, such as electronics, garments, electric appliances, and food processing. Self–employed workers mainly specialise in retail trade, transportation, and services.

Figure 1.



Notes: SOEs: State–Owned Enterprises; COEs: Collective–Owned Enterprises urban and rural areas; Individual: Individual–Owned Enterprises, in urban and rural areas. Others: share–holding companies, foreign–owned, joint–ventures (Hong Kong, Macao and Chinese Taipei).

Sources: China Yearbook of Labour Statistics, various years; *China Statistical Yearbook,* various years.

Table 2. **State Employment: Regional Distribution, 1980 and 1996**
(millions)

Province	State staff and workers				as a percentage of total staff and workers	
	1980		1996		1980	1996
		(%)		*(%)*		
Total	80.19	*100.0*	109.49	*100.0*	76.8	73.8
Beijing	2.694	*3.4*	3.490	*3.2*	82.5	75.8
Tianjin	1.881	*2.3*	1.943	*1.8*	77.5	68.4
Hebei	3.981	*5.0*	5.384	*4.9*	82.8	77.3
Shanxi	2.462	*3.1*	3.725	*3.4*	82.4	80.1
Nei Mongol	2.006	*2.5*	3.021	*2.8*	78.9	79.6
Liaoning	5.406	*6.7*	6.684	*6.1*	71.0	67.0
Jilin	2.705	*3.4*	3.858	*3.5*	72.2	75.2
Heilongjiang	4.681	*5.8*	6.184	*5.6*	74.3	75.9
Shanghai	3.519	*4.4*	3.125	*2.9*	78.8	68.4
Jiangsu	4.02	*5.0*	5.755	*5.3*	62.4	63.6
Jejiang	2.088	*2.6*	2.902	*2.7*	58.0	58.6
Anhui	2.471	*3.1*	3.668	*3.4*	72.0	73.0
Fujian	1.685	*2.1*	2.176	*2.0*	72.6	62.1
Jiangxi	2.329	*2.9*	3.360	*3.1*	81.3	81.6
Shandong	3.901	*4.9*	6.612	*6.0*	75.9	71.0
Henan	3.789	*4.7*	6.397	*5.8*	82.0	76.0
Hubei	4.042	*5.0*	5.661	*5.2*	80.2	76.7
Hunan	3.168	*4.0*	4.715	*4.3*	77.4	79.0
Guangdong	4.779	*6.0*	5.518	*5.0*	73.8	61.0
Guangxi	2.092	*2.6*	2.845	*2.6*	83.8	82.6
Hainan		*0.0*	0.877	*0.8*		85.3
Sichuan	5.562	*6.9*	7.344	*6.7*	77.3	74.4
Guizhou	1.476	*1.8*	1.966	*1.8*	82.2	84.9
Yunnan	2.02	*2.5*	2.670	*2.4*	87.4	84.7
Tibet	0.178	*0.2*	0.155	*0.1*	92.2	92.8
Shaanxi	2.389	*3.0*	3.361	*3.1*	84.7	84.4
Gansu	1.547	*1.9*	2.098	*1.9*	90.2	83.4
Qinghai	0.469	*0.6*	0.572	*0.5*	87.2	87.2
Ningxia	0.444	*0.6*	0.616	*0.6*	93.1	84.7
Xinjiang	2.206	*2.8*	2.808	*2.6*	90.4	89.5

Source: *China Yearbook of Labour Statistics*, 1997.

Table 3**. Gross Industrial Output: Enterprises with Independent Accounting Systems, 1996**

100 million yuan	Total	SOEs	per cent	Foreign[a]	per cent
Overall industry	62 740.2	27 289.4	*43.5*	11 972.63	*19*
Heavy industry	35 740.5	18 808.0	*53*	4 971.26	*14*
Mining	4149.7	3 025.7	*73*		*0*
Raw materials	13 896.8	9 097.4	*65*		*0*
Manufacturing	17 694.0	6 684.9	*38*		*0*
Light industry	26 999.7	8 481.4	*31*	7 001.37	*26*
Coal mining	1 428.8	1 059.5	*74*	2.54	*0*
Petrol. and natural gas	1 639.3	1 495.3	*91*	137.91	*8*
Timber and bamboo	177.7	167.5	*94*	0.06	*0*
Food processing	3 471.6	1 585.2	*46*	695.24	*20*
Food manufacturing	1 154.1	378.8	*33*	346.64	*30*
Beverage manufact.	1 422.8	703.7	*49*	341.69	*24*
Tobacco processing	1 202.2	1 165.0	*97*	10.95	*1*
Textile	4 722.3	1 619.5	*34*	819.11	*17*
Garment, other fiber products	1 776.7	113.6	*6*	769.85	*43*
Leather, furs and related products	1 112.2	76.6	*7*	539.29	*48*
Papermaking and paper products	1 215.3	418.8	*34*	193.03	*16*
Petroleum processing	2 212.1	1 877.3	*85*	49.84	*2*
Chemical materials and products	4 471.4	2 292.0	*51*	599.9	*13*
Ordinary machinery	2 680.9	947.0	*35*	354.44	*13*
Special machinery	1 988.1	892.5	*45*	159.29	*8*
Transport equipment	3 785.0	1 875.8	*50*	802.7	*21*
Elec. and telec. equipment	3 051.1	700.5	*23*	1 875.08	*61*
Instruments	528.7	147.4	*28*	251.54	*48*
Electricity	2 805.4	2 112.3	*75*	405.84	*14*
Gas	80.6	72.8	*90*	3.65	*5*
Tap water	232.3	190.8	*82*	0.4	*0*

a. Includes foreign funded enterprises (joint ventures; cooperative enterprises; joint-ventures exclusively by foreign investors) and enterprises funded by Hong Kong, Macao and Chinese Taipei.

Source: *China Yearbook of Labour Statistics*, 1997.

Table 4. **Employment in State-Owned Units**
million persons and percentage by sector

	1980			1996		
			percentage of formal employees			percentage of formal employees
Total	**80.19**	*100.00*	*76.78*	**109.49**	*100*	*73.76*
Mining	6.21	*7.74*	*89.1*	8.09	*7.39*	*91.41*
Manufacturing	26.01	*32.44*	*65.9*	32.18	*29.39*	*60.80*
Power, Gas, and Water Supply	1.12	*1.40*	*94.92*	2.5	*2.28*	*91.91*
Construction	4.75	*5.92*	*66.9*	5.95	*5.43*	*57.49*
Transp., Storage, and Comm.	4.98	*6.21*	*69.75*	6.84	*6.25*	*82.41*
Commerce	10.05	*12.53*	*81.11*	10.55	*9.64*	*58.38*
Banking and Insurance	0.63	*0.79*	*70.79*	2.08	*1.90*	*72.22*
Social Service	1.3	*1.62*	*59.63*	3.29	*3.00*	*71.83*
Research and Polytechn. Serv.	1.04	*1.30*	*93.69*	1.66	*1.52*	*94.32*

Source: *China Yearbook of Labour Statistics*, various years.

III. EVOLUTION OF CHINA'S LABOUR MARKET

Employment under the Centrally Planned System

Since the 1950s, there was no "labour market" in a strict sense under the centrally planned economy. Employment has been historically characterised by the following features: a) egalitarian employment both in rural and urban sectors; b) segmentation of rural and urban employment; c) enterprise–linked social security for urban workers; and d) life–time jobs, mostly in the same workplace. Although there have been significant changes since the early 1980s, all these institutional characteristics remain important when considering the labour market aspects of SOE reform.

Egalitarian employment and hidden unemployment. As a socialist country, egalitarianism played an important role in labour arrangements. That everyone had a job was regarded as one of the most important feature of the socialist economy. However, in an underdeveloped economy with the world's largest population, full employment was an impossible goal and what was achieved was only an "iron rice bowl" system, meaning "on–the–job under–employment" for both the industrial labour force and the rural labour force.

In the urban areas, open unemployment rates remained consistently low (lower than 3 per cent in most years) while hidden unemployment took the form of over–staffing in the civil service, the SOEs and urban collective enterprises. In the rural areas, it existed in the form of a low land–labour ratio. Everyone in the countryside was entitled to the right to have a piece of land to farm, but the land per person became smaller as the labour force grew.

Over–staffing in SOEs originated mainly through three channels:

— In most cases, SOEs were required by the government to hire new employees every year, including new high school or college graduates, army veterans and others who were considered eligible for assistance programmes by the government, no matter whether the enterprises needed them or not.

— The introduction of labour–saving technology created over–staffing, because employment was rigid. No one could be fired, having the right to stay with the same enterprise.

— In some cases, over–staffing was due to increases in wage rates under unchanged production conditions. In short, wage increases were due not to the rise of marginal labour productivity but simply to an income increase decided by the government. A certain number of employees would then become redundant, compared with a market equilibrium level of employment at that wage level[9].

All of these are based on the following formal institutional arrangements and/or informal social norms for employment: urban citizens are born with the right to work (in an urban "unit"); an employee could not be fired for any reasons other than his or her own wrongdoing; and the wage rate is controlled and adjusted by the central authority.

Over–staffing is a form of "disguised" or "hidden unemployment". The definition of hidden unemployment depends on the institutionalised objective functions under different economic systems. For example, "hidden unemployment" due to over–staffing in a profit–maximising enterprise may be regarded as normal employment for an output–maximising enterprise. Similarly, "job for everyone" employment may be pursued in an economy where egalitarianism is institutionalised into the objective function for both enterprises and the government. The recognition of hidden unemployment as a problem reflects the shift of objective functions (giving more weight to efficiency and high growth and less to equity) and the changes of opportunity costs caused by the new economic environment (such as opening to the rest of the world).

In the rural areas, there has been no official accounting for unemployment. The "commune" ensured to everyone the right to work and earn income based on a "work points" system. When collective farming was replaced by the *household contract responsibility system* after 1979, land was leased to the household on a per capita basis. Landlessness does not exist and the sale of land is forbidden. This not only does it provide the rural labour force with the means of production, but it also gives families a minimum of security if their members cannot find employment or lose their jobs elsewhere. This is important to keep in mind when thinking about labour migration issues.

Urban–rural segmentation. Urban–rural segmentation is another important feature of China's labour system. Historically, there were two major institutional restrictions that made this effective. The first was the Residence Registration System (RRS). Everyone in the country has to have a residence registration in a locality and changes of jobs from one locality to another should be accompanied by a change of residence registration. The most important categorical difference is that between urban and rural registration. It was very difficult for rural residents to become "urban" while the urban registration holder would almost never choose to switch to be a rural resident. Only very few rural people were permitted to change their rural residence to urban residence under the quota controlled by the government. The registration change was usually conditional on (promised) employment in urban industries. In many industries, jobs — especially "permanent jobs" — were reserved for urban residents.

The second important restriction prohibiting rural people from becoming urban residents was the rationed provision of consumer goods such as food and housing for urban residents. Urban registration and food rations were administered by the same government office. Since the early 1980s, more and more people with the status of "rural residents" have come into the cities and been able to stay simply because now they can survive with the free market supply of consumer goods, including food and housing. It is the parallel market of consumer goods that makes the RRS less effective and actually undermines labour market segmentation.

Enterprise–linked safety net. Unlike former socialist countries of Europe, the Chinese government has never had an obligation to provide social security to all (or the overwhelming majority) of its citizens. The majority of the population that lives in rural areas has not been covered by the state social welfare system. This means that less than 20 per cent of the total labour force and the population is covered by the social security network.

Under the previous system of rural communes, the collectives did provide the members of the communes with minimum security and welfare, such as collective health care and social welfare programmes for the disabled and for the elderly without other means of support.

On the other hand, social security for urban workers was not really social but provided by their production units, either state enterprises or government institutions, and to a limited extent also urban collective enterprises. The so–called “unit” meant everything to employees, from basic wage to housing, pensions and child care.

The low coverage, in terms of population, and the enterprise–based provision of social services were unique features compared with the Eastern European countries and the former Soviet Union. They remain the main traits of Chinese social security system today and have important implications for economic reform.

Life–time job tenure. The issues discussed above are all related to labour mobility. In addition to the low mobility of labour between rural and urban areas and between the agricultural and non–agricultural sectors, rural–to–rural and urban–to–urban mobility was also low under the planning system.

For peasant households, moving to another village was difficult because it would change per capita distribution of land in at least two villages.

The low urban–to–urban mobility of labour under the SOE system was mainly due to the low mobility of capital, in the sense that not only was the sectoral or regional re–allocation of capital stocks blocked by the state bureaucracy, but also changes of ownership were institutionally ruled out. The low mobility of labour was a logical consequence of the state ownership system.

The restrictive administration of residence permits also limited the mobility of urban residents to other cities. It was difficult to move to a new city because to do so involved changes in the provision of consumer goods associated with the persons concerned. The change of job from one enterprise to another or from one industry to another was also difficult, because it involved the change of the “unit” which provided the different social services.

“Dual–track” Transition of the Labour Market

Since the start of economic reforms, the employment system has been undergoing changes and the labour market has been evolving. In 1980, a formal government regulation was put in effect to encourage self–employment and job search by individuals. This was actually an announcement that the government would no longer take full responsibility for providing a job for everyone and the job market was to be developed. It marked the start of the “dual–track transition” of the labour market. The planned employment system still exists but its importance has been shrinking gradually. Among the important labour market developments are the following:

— Since 1979, bonuses and piece wages have been re–introduced in enterprises in an effort to improve labour productivity.

— Starting in the mid–1980s, SOEs were entitled to hire and to fire their workers, in principle at least. Meanwhile, the government adopted regulations requiring SOEs to allow their employees to change their jobs and to protect the rights of employees to resign from their present units.

— In 1983, certain localities experimented with gradual replacement of permanent employment of state employees with contract labour. The experiment was extended on a national basis in 1986, through a provisional regulation. All the newly employed should be "contract workers", either on long–term contracts (one year or above) or short–term contracts. With the 1995 Labour Law, labour contracts were made mandatory in all industrial enterprises, including TVEs.

Table 5. **New Urban Employment**

	Total	from rural	from urban	College Graduates	Others[a]
			millions		
1980	9.00	1.27	6.23	0.80	0.70
1985	8.14	1.50	5.02	0.89	0.73
1990	7.85	1.18	3.40	1.68	1.59
1993	7.05	1.85	2.92	1.93	0.35
1996	7.05	2.10	2.58	2.07	0.30
			percentages		
1980	100	14.2	69.2	8.9	7.8
1985	100	18.5	61.7	10.9	8.9
1990	100	15.0	43.3	21.4	20.3
1993	100	26.2	41.4	27.4	5.0
1996	100	29.8	36.6	29.4	4.3

	Total	SOUs[b]	UCs[c]	Others[d]	Self-employment
			millions		
1980	9.00	5.72	2.78		0.50
1985	8.13	4.99	2.03		1.11
1990	7.85	4.75	2.35	0.35	0.40
1993	7.05	3.10	2.02	0.98	0.95
1996	7.05	2.43	1.55	1.67	1.40
		as a percentage of total new urban employment			
1980		63.60	30.89		5.56
1985		61.38	24.97		13.65
1990		60.51	29.94	4.46	5.10
1993		43.97	28.65	13.90	13.48
1996		34.47	21.99	23.69	19.86

a. Officials retired from the army.
b. SOUs: State Owned Units
c. UCs: Urban Collective Owned Units.
d. 'Others' includes share-holding companies, joint-ventures, foreign-owned.

Source: *China Yearbook of Labour Statistics*, 1997.

— Since 1983, a kind of "job–holding without pay" scheme was instituted, in effect allowing unpaid leave of absence from the state sector. Under such an arrangement, state employees who found jobs outside the state sector or in other state units could try new jobs but still keep state employee status without receiving pay (and without medical care in most cases) for one or 2 years. They could keep their current housing in most cases. If they were satisfied with their new jobs, they could resign from their old positions; if not, they were eligible to return during the trial period and maintain their pension and other welfare benefits.

Such a transitional arrangement provides people with a feeling of security and therefore encourages them to try new jobs and perhaps eventually to leave. Since 1983, a considerable number of people have left the state sector through the so–called Personnel[10] (or Labour) Exchanges set up to facilitate such transfers. As of 1996, there were roughly 30,000 such exchange centres with close to 20 million registered persons. In that year, more than 8 million job vacancies were filled through labour exchanges. Besides providing job information and placement services, the most important role of the centres is taking care of those who are experimenting with new employment, such as keeping their personnel files (employment records in SOEs).

One possible drawback of this scheme (and any other based on voluntary departures) is that of adverse selection. Those who leave SOEs will be those most readily employable elsewhere — whether for reasons of skill, hard work or other factors — while those remaining with the SOEs are apt to be the least employable in a competitive labour market. If remaining workers in SOEs are less productive than those who depart, and if SOE wages are downwardly rigid, this could partly explain the lag of productivity growth behind wage growth that has contributed to weak financial performance of SOEs in recent years.

— Since the mid–1980s, the sale of urban residential registration (*hukou*) to rural residents who want to move into the cities has become a common practice in many places. Recently, an officially approved approach is followed that involves the payment of a lump–sum "urban infrastructure tax" in exchange for the urban residence registration in some large cities such as Beijing. This applies not only for a rural–urban change, but also for an urban–urban transfer. The tax is as much as ten times the average salary. It is, however, usually paid by the companies that need the employees.

Also important for its impact on labour market mobility was the launch, in the second half of the 1980s, of social security reform. The reform encompassed several areas, from the institution of unemployment insurance funds to the implementation of pension reform to the adoption of measures on health care and social assistance (see discussion below).

Current SOE Employment and Earnings Status

As we have seen above, employment in China's state sector has been expanding over the period of SOE reform. Since the early 1990s, on average each year a few million new employees have joined the state sector[11]; in 1996, the figure was 2.43 million (see Table 5).

Table 6**. Employment by Occupation and Gender, 1996 (%)**

	Workers and Apprentices	Service Personnel	Engineers and Technicians	Management Personnel	Others[a]	*Female workers*
Total						*38.70*
Mining	60.9	15.2	4.1	8.9	10.9	*26.10*
Manufacturing	69.2	6.4	6.1	10.5	7.9	*44.70*
Power, gas, and water supply	67.6	6.8	10.2	12.3	3.0	*31.60*
Construction	69.3	4.9	8.9	10.3	6.6	*19.80*
State Owned Units						*36.40*
Mining	59.8	16.1	4.2	9.0	10.9	*24.40*
Manufacturing	66.6	7.8	6.6	10.6	8.4	*40.60*
Power, gas, and water supply	67.4	6.8	10.3	12.4	3.0	*31.70*
Construction	64.1	6.8	9.0	11.8	8.3	*21.20*
Urban Collectives						*44.50*
Mining	73.3	4.8	2.7	7.4	11.8	*44.20*
Manufacturing	72.9	3.9	4.5	9.9	8.8	*52.40*
Power, gas, and water supply	75.3	5.6	6.7	9.8	2.5	*32.60*
Construction	76.6	2.3	8.7	8.1	4.3	*18.20*
Others[b]						*47.50*
Mining	71.4	6.8	5.8	11.8	4.2	*24.50*
Manufacturing	73.5	4.6	7.1	10.7	4.1	*48.70*
Power, gas, and water supply	65.0	7.6	12.3	12.1	3.1	*29.40*
Construction	69.8	3.6	10.5	10.9	5.2	*16.00*

a. Workers employed on a temporary basis.
b. 'Other units' includes share-holding companies, joint-ventures, foreign-owned enterprises and overseas Chinese companies.

Source: *Yearbook of Labour Statistics of China*, 1997.

In 1996, 14.6 per cent of new SOE workers were recruited directly from urban areas, which remain the major source of candidates for SOE recruitment. However, almost a fifth of new SOE employees come from the countryside. College graduates represent 21.3 per cent of new employees in SOEs (somewhat lower than their share of total new urban employees), 4.1 per cent come from the army and 27.6 per cent are workers transferred from other SOEs. The growing numbers of rural workers in SOEs are usually hired as short–term contract workers, though many stay with their enterprises for quite a long time and some are able to obtain urban resident registration.

Characteristics of the Labour Force

In terms of employment status, workers in the state sector are classified as "long–term workers" and "temporary workers". Since 1986, all newly employed state workers should work under contract, including long–term workers. In 1996, there were 55.5 million contract workers, half of all staff and workers in the state sector. Long–term workers hired before the introduction of contractual work are still implicitly regarded as lifetime employees. Naturally, the proportion of such workers will shrink over time as permanent workers retire and are replaced with contractual ones. At the end of 1996, 10.4 per cent of all workers were 55 years or older, which means (assuming the same proportion for the state sector) that within the next 5 years almost 11 million state workers will retire. In fact, the proportion of state workers in the pre–retirement age group is probably somewhat higher than in the general labour force.

Table 6 shows the breakdown of the work force by job classification. The percentage of professional (technicians and engineers) and managerial personnel is highest in the sector of “other” ownership (i.e., joint ventures, shareholding companies, etc.), followed by the state sector and urban collective enterprises, but the differences are slight. More significant are the high proportions of service and other workers in the state sector compared with the non–state sector. The former includes those social welfare workers not directly involved in production activities, while the latter would appear to include temporary workers.[12]

Females have risen as a proportion of total urban wage workers in the past 15 years. Despite the historic egalitarian policy in labour allocation in the state sector, women are today better represented in the non–state sector than in the state sector. This is probably due to the growth of labour–intensive light manufacturing industries (e.g., garments, footwear, electronics assembly) employing mostly female production workers. Though not reflected in the table, the growth of the service sector, where non–state enterprises are common, has also created many jobs for women.

A potential problem posed by future state sector retrenchment is that many of the jobs lost are likely to be ones occupied by male workers (e.g., in heavy industry), while many of the new jobs created in the private sector will be occupied by women. While gender–typing of jobs can change as labour market conditions change, social attitudes may change more slowly. A number of countries — not only in the developing world — have labour markets where traditionally male occupations are experiencing weak growth or actual decline and male unemployment is rising even as labour force participation and employment of women continue to grow.

Wages and Other Remuneration

The reallocation of labour from low–productivity to high–productivity activities happens through relative wage adjustments in a competitive labour market. As more profitable enterprises expand and less profitable ones contract, the former bid workers away from the latter with higher wages and/or more generous benefits. Thus, with the SOE sector accumulating sizeable losses, one would expect the wages of SOE workers to fall relative to those in the more profitable private sector. In China, this is not what seems to have happened in recent years. The main reason would seem to be the persistence of the soft budget constraint, which has enabled state enterprises to raise wages and/or benefits even with poor financial performance. Indeed, the fact that pay increases have exceeded productivity increases contributes to the SOEs’ financial problems.

Wage differentials by type of enterprise. Official data show that average wages for staff and workers in the state sector are higher than in urban collectives, but lower than in the private sector (joint–ventures, shareholding companies, and foreign and overseas Chinese companies) (see Table 7). The ratio among these three categories of average wages increased from 1:0.8:1.18 in 1985 to 1:0.68:1.31 by the end of 1996.

The higher cash pay for workers in urban non–state enterprises, especially the foreign funded companies, is not only intended as an efficiency incentive but also as compensation for housing and medical care which are not normally provided to workers by non–state companies.

Table 7**. Average Wage of Staff and Workers by Different Ownership**
(yuan in current prices)

	All Urban Workers	SOEs	UCs	Others[a]	SOEs	UCs	Others[a]
Year	average annual wage				average real wage index (1990=100)		
1978	**615**	644	506		62.6	66.8	
1979	**668**	705	542		67.3	70.3	
1980	**762**	803	623		71.3	75.1	
1981	**772**	812	642		70.3	75.6	
1982	**798**	836	671		71.0	77.5	
1983	**826**	865	698		72.0	79.0	
1984	**974**	1 034	811	1 048	83.8	89.4	65.0
1985	**1 148**	1 213	967	1 436	87.9	95.2	79.6
1986	**1 329**	1 414	1 092	1 629	95.7	100.5	84.3
1987	**1 459**	1 546	1 207	1 879	96.2	102.1	89.4
1988	**1 747**	1 853	1 426	2 382	95.5	99.9	94.0
1989	**1 935**	2 055	1 557	2 707	91.1	93.9	91.8
1990	**2 140**	2 284	1 681	2 987	100.0	100.0	100.0
1991	**2 340**	2 477	1 866	3 468	103.0	105.5	110.5
1992	**2 711**	2 878	2 109	3 966	110.3	109.8	116.3
1993	**3 371**	3 532	2 592	4 966	116.5	116.2	125.4
1994	**4 538**	4 797	3 245	6 303	126.6	116.5	127.4
1995	**5 500**	5 625	3 931	7 463	127.1	120.9	129.1
1996	**6 210**	6 280	4 302	8 261	130.4	121.5	131.3

a. 'Other units' includes share-holding companies, joint-ventures, foreign-owned enterprises and overseas Chinese companies.

Source: *China Yearbook of Labour Statistics, various years.*

The total wage bill. The total wage bill consists of the following major components: *i)* a basic or "standard" wage, determined by working age, working position, and skill level, *ii)* bonuses and overtime pay; *iii)* subsidies and allowances (e.g., for cost–of–living increases).

Official statistics show that the basic wage has declined as a proportion of the total wage bill from 85.7 per cent in 1978 to 55.4 per cent in 1996 while the bonus has increased from 2.4 per cent to 16.1 per cent, having reached a peak of 23.3 per cent in 1993 (see Table 8). While bonus payments as a share of total compensation are roughly similar across enterprise types, subsidies and allowances are far more significant in the state sector, amounting to roughly a quarter of the total wage bill. Also, this item has steadily grown as a share of the total SOE wage bill since the beginning of reforms.

Bonuses are paid from retained profits, and some commentators argue that their rapid increase has been at the expense of investments in the upgrading of technology, thus impairing productivity performance (Fan and Woo, 1993).

Table 8. **Components of Total Wage Bill in the State Sector**
(shares)

	Standard Wage (basic wage)	Bonus and Extra-wage	Subsidies and Allowances	(Residuals)
1978	85.7	2.4	6.5	5.4
1979	77.6	7.9	8.8	5.7
1980	72.4	9.7	14.1	3.8
1981	71.6	11.3	14.0	3.1
1982	70.4	12.5	14.1	3.0
1983	70.2	12.9	14.1	2.8
1984	65.9	16.5	14.5	3.1
1985	64.6	14.5	18.5	2.4
1986	63.1	14.7	18.8	3.4
1987	61.3	16.9	18.9	2.9
1988	56.1	19.5	21.4	3.0
1989	54.2	19.9	23.1	2.7
1990	55.7	19.1	21.8	3.4
1991	55.4	20.0	22.1	2.5
1992	51.7	22.2	23.8	2.4
1993	46.6	23.3	25.1	5.1
1994	(-)	17.9	(-)	(-)
1995	(-)	16.8	(-)	(-)
1996	55.4	16.1	23.9	4.6
1996				
UCs[a]	66.2	12.5	15.7	5.6
OUs[b]	59.8	19.9	12.1	8.2

(-). not available.
a. See Table 1.
b. See Table 1.

Source: *China Yearbook of Labour Statistics*, various years.

Data show that the size of the bonus is positively correlated with enterprise performance: bonuses in loss–making enterprises tend to be significantly lower than those in profit–making enterprises (Hussain and Zhuang, 1994). Nevertheless, some low profit–making or loss–making enterprises have still paid bonuses (Walder, 1987; Hussain and Zhuang, 1994). For instance, in 1993 the bonus payment accounted for more than 22 per cent of the total wage bill in coal mining and oil extraction, even though the two sectors have suffered consistent losses. The persistence of a soft budget constraint makes this possible: if losses can be attributed to exogenous factors, such as changes in the planned price or in the exchange rate, enterprises may be able to re–negotiate their financial obligations to supervisory authorities. Fiscal decentralisation appears to have imposed a rather hard budget constraint on local governments, with the result that they face strong pressure to control costs in enterprises under their control. Cao *et al.* (1998) argue that this is a major factor explaining why local SOEs have been restructured (and in many cases ‘privatised’) more rapidly than central SOEs.

The government has kept control over the wage bill by *i)* setting standard wages, and *ii)* taxing bonus payments above certain levels. The SOEs are allowed to pay the equivalent of four months' basic wage as bonus without paying taxes on that amount. A higher bonus is taxed at an increasing marginal rate — 30 per cent for the equivalent of the fifth month's basic wage, 100 per cent for the sixth month and 300 per cent for exceeding six months' basic wage. To avoid the tax on bonus payments, SOEs have increased their payment to workers in in–kind subsidies, instead of cash.

As Table 7 indicates, since 1990 workers in state enterprises have seen their average wages increase as fast as those in the private sector. How is this possible at a time when the profitability of the state sector as a whole has been declining? The main reason is the combination of expanded discretionary power of SOE managers, increased bargaining power of SOE workers, and incomplete commercialisation of the SOE sector. If SOEs were faced with a hard budget constraint, it seems unlikely that SOE managers would grant themselves salary increases and workers push for wage increases that threaten the viability of their enterprises and their jobs (Freeman, 1993).

Layoffs, Quits and Surplus Labour

Since the early 1980s it has been legal for enterprises, including SOEs, to lay off workers. Also, workers were legally allowed to quit or switch jobs. Involuntary dismissals from the state sector remain the exception, though with increasing numbers of contract workers the non–renewal of contract has the same effect. Still, it is easier for SOEs to adjust their labour force by controlling new employment than by dismissing current employees. Even if the formal rules have changed, the social norm of lifetime employment inherited from the previous system remains strong.

We cited studies in a previous section based on both survey data and case studies which assess the size of surplus labour in the state sector in general and in SOEs in particular.[13] Estimates of surplus labour run as high as one–half of the work force in certain SOEs, with an average figure of perhaps one–fourth. What then is the solution?

At present, surplus workers are supposed to leave their posts and become "left–post workers" (also identified as workers "waiting for jobs within the enterprise"; UNDP, 1996). While historical data are not available on numbers of such workers, the data for 1996 indicate that over 6 per cent of formal urban employees were "left–post workers" (i.e., some 8.9 million persons), of whom two–thirds were in SOEs and the rest in urban collectives[14]. These workers maintain their relationship with their enterprise but are not employed in the main production lines. Some are enrolled in re–training programmes; others are engaged in side–line production; still others may be on extended unpaid leave.

Fan (1995) reported that in 1993 about 65 per cent of the identified surplus workers were re–employed within one year. Only a small proportion of these were re–employed because of expansion of the main production lines, while half were re–employed in side–line activities, such as retail and service business (so–called "service companies") run by the enterprises concerned. Of the 8.9 million "left–post workers" in 1996, by mid–1997 some 3.6 million reportedly had found jobs, while 2.3 million had left the labour force and another 3 million were still unemployed (Song, 1997, cited in Cao *et al.*, 1998).

Table 9. **Surplus Labour in SOEs: Regional Distribution, 1996**

	Surplus Labour as a percentage of SOE Staff and Workers in the Region
Total	8.9
Beijing	3.5
Tanjin	8.7
Hebei	7.5
Shanxi	4.5
Nei Mongol	5.8
Liaoning	13.7
Jilin	10.4
Heilongjiang	10.7
Shanghai	9.4
Jiangsu	7.9
Jejiang	7.4
Anhui	9.6
Fujian	6.6
Jiangxi	10.7
Shangdong	5.0
Henan	8.6
Hubei	13.0
Hunan	13.5
Guangdong	8.0
Guangxi	3.8
Hainan	9.7
Sichuan	11.1
Guigou	8.7
Yunnan	14.9
Tibet	0.9
Shaanxi	8.2
Gansu	4.6
Qinghai	4.8
Ningxia	3.7
Xinjiang	2.8

Note: Surplus labour: workers who are supposed to have left their posts awaiting other jobs within the enterprise.

Source: *China Yearbook of Labour Statistics*, 1997.

The problem of surplus SOE labour is to some degree geographically concentrated. In some regions, a large proportion of the industrial labour force is employed in a few large, unprofitable state enterprises[15]. These “mega–enterprise” cities or regions pose the biggest SOE reform challenge. Table 9 reports official figures on regional surplus labour (which are much lower than unofficial estimates but still indicative of the main potential trouble spots). The most affected regions are Liaoning, Shanghai[16], Heilongjiang, Jilin, Jiangxi, Hubei, Hunan, Sichuan and Yunnan. Other regions may also suffer serious problems, although official estimates of surplus labour are lower, because of the virtual absence of non–state employment opportunities (see Table 2 above).

The city of Anshan is a typical case of a “mega–enterprise” city. The Anshan Steel Company (ASC) is an industrial group of more than 300 enterprises and plants. In the mid–1990s, workers in state–owned steel plants represented half of the total employment in the city. The remaining half was employed in enterprises set up for the purpose of employment of state workers’ family dependants or workers released from the main production lines. Most of these enterprises rely on the ASC financially and their workers often enjoy all the benefits of state employees. While at present Anshan’s financial situation appears sound, if it were to experience major problems in future the city’s whole economy could succumb.

Shenyan is another city in China’s northeastern “rust belt”, one that already faces severe unemployment problems. Many local SOEs are being sold, either at auction or through negotiated acquisition, in one of the most comprehensive privatisation programmes in China since reforms began. Of the 232 large state industrial plants in the city, only 16 are to remain under state control, and these would eventually be consolidated into about 5 diversified groups. Already, out of a workforce of 2 million, some 360 000 (or almost 20 per cent) have lost their jobs, and another 20 per cent are reportedly queued for redundancy. Meanwhile, the placement rate of the local job centres is below 50 per cent (Kynge 1998).

Those state manufacturing employees with specialised skills may have a chance of being re–employed in non–state enterprises in the same or a related industry after some retraining. The growing foreign–invested private sector hires on average a better–qualified work force. For this reason, workers in the state sector represent a potential reserve, being in general better educated and more skilled and experienced than workers in TVEs and the self–employed. On the other hand, unskilled workers in SOEs face rather unattractive labour market prospects, as there are many competitors for unskilled jobs and they are unlikely to enjoy the same pay and benefits in the non–state sector as they do in the state sector.

In most industries, female workers, who in 1996 accounted for about 36 per cent of total state workers, are more vulnerable to unemployment than males. This happens because females are on average less skilled and often employed as supporting workers on a temporary basis. Also, where husband and wife are employed in the same enterprise, social norms may assign to the former the status of “primary earner” in the event that cutbacks in staffing must be made. At the same time, as discussed above, low–skill female workers may face better re–employment prospects in the growing non–state sector than their low–skill male counterparts.

IV. SOCIAL SAFETY NET

The success of SOE reform depends on the parallel implementation of other reforms, such as reform of the pension system and of the health care system. Due to a combination of overall population ageing and the especially rapid ageing of the workforce in many SOEs, the number of pensioners in the state sector is rising so rapidly that some state enterprises already have more pensioners than workers. With enterprise–specific pension schemes, the financial burden on such enterprises is becoming insupportable.

Reform of social security aims to de–link the safety net from state enterprises and "socialise" it, by introducing criteria for sharing costs of social services between employers, employees and the government and by the pooling of pension and other social security resources across enterprises within a given jurisdiction. Reforms cover four main areas: *pensions; health care; housing;* and *social assistance* (e.g., unemployment insurance).

Enterprise–Linked Safety Net

Pension payment, medical care, and fringe benefit expenditures (including heating and certain other subsidies) are counted as "insurance and welfare expenditure"[17], additional to the wage bill of SOEs (and taken out of enterprise profits). For purposes of comparison, this item has increased from 14 per cent of the wage bill in 1978 to 34 per cent (33 per cent for SOEs) in 1996 (see Table 10). While non–state workers also receive welfare benefits, they are generally lower than state workers either in amount or in relation to wages. In 1996, the total welfare expenditures of urban collective enterprises and other non–state enterprises were respectively 26 per cent and 15 per cent of their total wage bill, significantly lower than in the state sector.

Pensions

One of the major benefits a state worker enjoys is the retirement pension programme, not available to rural workers or, until recently, to workers in the private sector. The pension system inherited from the central planning era is a *de facto* pay–as–you–go (PAYG) system: pensions to current beneficiaries are paid out of current enterprise revenues. Reform of pensions seeks to involve state workers in contributions for pensions and to extend pension programmes to workers in the non–state sector.

The pre–reform pension system: Retirement ages for SOE workers are 60 for men and 55 for women. Having served in the state sector for more than 25 years, a worker is entitled to pension payments up to 80 per cent of his/her salary at retirement age. As seniority is a determinant of the wage, the average pension payment is normally higher than 80 per cent of the average basic wage (see Table11).

The pension fund is managed by the individual enterprise not by a government agency. Contributions are made into the fund on behalf of that enterprise's workers and withdrawn from the fund to pay that enterprise's retirees. This means that retired workers must rely on their enterprises for their pensions. Usually, there is an office in charge of this matter in the SOEs. Thus, if an enterprise were to cease operation, not only would it put active employees out of work but it would deprive retired employees of their pensions as well.

Retired workers are still entitled to receive subsidies (up to one–tenth of the basic pension payment) for food, transportation and heating, which are normally part of workers' total income. They also maintain rights to medical care reimbursement. They are not, however, entitled to a bonus, which has become a sizeable part of workers' cash income and accounts for much of recent income growth. Still, the link with their enterprises enables retired workers to share in the income growth of SOEs —the SOEs usually give some extra payments (in various forms, cash or kind) to retired workers as long as the enterprises are able to pay a higher bonus to employed workers. The total income for an average retired worker is about 20 per cent more than the pension payment itself.

As life expectancy increases and SOE workers get older, the dependency ratio (ratio of retired workers to active workers) in SOEs is increasing rapidly. During 1996, more than 25 million persons retired from the state sector, of whom 18 million retired from SOEs. The dependency ratio in the state sector has increased from 3.3 per cent in 1978 to 19.6 per cent in 1993 to 23 per cent in 1996. In state enterprises, the ratio increased from 3.4 per cent in 1978 to 20.2 per cent in 1993 to 24.5 per cent in 1996. That means over 30 active workers supported one retired worker 15 years ago; in 1996 only four workers were sharing the same "burden" (see Table 12 and Table 13).

As a result, expenditures on pension payments by SOEs have increased to an amount equal to 18.9 per cent of the total wage bill in 1996, even though in company accounts they are counted not as part of the wage bill but as "non–operating expenditures" (paid out of profits). Therefore, the increasing size of pension payments is not among the factors directly responsible for the decreasing profitability of SOEs as measured under the current accounting system. It has indirect negative effects on efficiency and profitability improvement instead, since it reduces retained profits for reinvestment.

Under the current system, the pension bill is not deductible for the purpose of corporate income tax. After paying taxes, however, some SOEs may not be able to pay pensions. This is one of the reasons why profit remittances or corporate income tax payments often become negotiable. Otherwise, the government must give SOEs subsidies to finance their pension obligations, and this is actually happening with many non–profitable SOEs.

The higher the retired ratio and the pension bill, the less retained profits can be used for the purpose of technical upgrading and innovation of the SOEs. Therefore, enterprises complain about their "pension burden". The reality is that, in the past, a certain amount of income that should have been saved as pension funds by workers themselves or by the SOEs was taken away by the state as "profits" and re–invested in new enterprises.[18] In principle, then, as SOE workers who did not save directly for their retirement reach retirement age, it seems equitable that the state should transfer part of the profits from "younger" SOEs to the "elder" enterprises to pay a portion of their pension obligations.

The dependency ratio varies as a function of the industrial sector and the age of the enterprises. "Old industries" such as coal mining and textiles suffer heavier retirement burdens than new industries such as electronics and compared to non–state enterprises, most of which are relatively young.

Table 10. **Total Welfare Expenditure[a] by Type of Enterprise**

	Total		SOUs		UCs		Other Units[b]	
	bn yuan	as a proportion of wage bill[c]	bn yuan	as a proportion of wage bill[c]	bn yuan	as a proportion of wage bill[c]	bn yuan	as a proportion of wage bill[c]
1978	7.81	14%	6.69	14%	0.09	1%		
1985	32.74	24%	21.04	20%	5.57	18%	0.12	20%
1993	167.02	34%	137.45	36%	23.86	28%	4.51	18%
1996	272.53	30%	227.65	34%	31.78	26%	11.09	15%

a. Total welfare expenditure: total social insurance and welfare funds (employed and retired workers) State-owned units: the numbers refer to the total paid by employer units and exclude amount paid by civil administration departments. For SOEs: in 1996 the figure was 153.4 bn yuan, or 33 per cent of total wage bill.

b. Including joint venture, foreign funded companies, share-holding companies, and other corporations, excluding private companies.

c. Total wage bill of formal employees.

Sources: *China Yearbook of Labour Statistics,* various years*; China Statistical Yearbook,* various years.

Table 11. **Pension Bill in SOUs**

	Total Pension Payment by SOUs			Average Pension in SOUs	
	billion yuan	rate of increase (%)	as a proportion of total wage bill (%)	yuan	as a proportion of average wage (%)
1978	16.3			574	89
1979	28.9	77.3		764	108
1980	43.4	50.2	6.9	781	97
1981	53.3	22.8	8.1	774	95
1982	62.1	16.5	8.8	774	93
1983	74	19.2	9.9	787	91
1984	84.6	14.3	9.7	815	79
1985	116.1	37.2	10.9	1 043	86
1986	137.5	18.4	10.7	1 114	79
1987	168.2	22.3	11.5	1 233	80
1988	215.6	28.2	11.9	1 453	78
1989	252.8	17.3	12.3	1 593	78
1990	313.3	23.9	13.5	1 868	82
1991	372.9	19.0	14.4	2 096	85
1992	465.7	24.9	15.1	2 448	85
1993	612.9	31.6	16.1	2 979	84
1994	861.5	40.6	16.6	3 923	82
1995	1 074.2	24.7	17.7	4 620	82
1996	1 285.4	19.7	18.9	5 229	83

Source : *China Yearbook of Labour Statistics*, 1997

Experiments in pension design: Attempts to reform the pension system began in 1978, taking two directions: to extend the coverage of the pension system to the non–state sector; and to modify some of the benefits and requirements of the old system. Some of the new measures adopted created new problems. An example is the early retirement programme, meant to free jobs for new labour force entrants, which resulted in a dramatic increase of pension costs.

Since 1986 the government has issued several new regulations on pensions. A system of pooling across state enterprises at the municipal level has been introduced. Enterprises contribute according to an established rate and are responsible for distributing pensions to their former employees. Equally important, since 1986 all new employees, who are hired on a contract basis, make individual contributions to a pension pool. The pool for contract workers is separated from that established for permanent workers. The same system has been extended, since the late 1980s, to collective–owned enterprises. In principle, other types of enterprise, such as joint ventures and foreign enterprises, should be gradually integrated into pension pools (World Bank, 1996*b*; White, 1997).

Table 12. **Number of Retired Persons (millions); Dependency Ratio (%)**

	Total		SOUs		UCs		Other Ownership	
	Retired	Retired/ Employed *(%)*	Retired	Retired/ Employed *(%)*	Retired	Retired/ Employed *(%)*	Retired	Retired/ Employed *(%)*
1978	3.14	3.31	2.48	3.33	0.30	1.46		
1979	5.96	5.99	4.37	5.68	1.23	5.41		
1980	8.16	7.81	6.38	7.96	1.78	7.34		
1981	9.50	8.70	7.40	8.84	2.10	8.18		
1982	11.13	9.90	8.65	10.02	2.48	9.35		
1983	12.92	11.24	10.15	11.57	2.77	10.09		
1984	14.78	12.50	10.62	12.30	4.12	12.81	0.04	10.81
1985	16.37	13.33	11.65	12.96	4.67	14.05	0.05	11.36
1986	18.05	14.08	13.03	13.96	4.96	14.50	0.06	10.91
1987	19.68	14.93	14.24	14.75	5.38	15.42	0.06	8.33
1988	21.20	15.63	15.44	15.46	5.68	16.10	0.08	8.25
1989	22.01	16.13	16.29	16.12	5.62	16.05	0.10	7.58
1990	23.01	16.39	17.24	16.66	5.66	15.95	0.11	6.71
1991	24.33	16.67	18.33	17.19	5.88	16.21	0.12	5.56
1992	25.98	17.54	19.72	18.11	6.09	16.82	0.17	6.03
1993	27.80	18.52	21.43	19.62	5.96	16.77	0.41	7.65
1994	29.29	19.73	22.49	20.65	6.20	19.31	0.60	8.03
1995	30.94	20.75	24.01	21.92	6.21	20.18	0.72	8.22
1996	32.12	21.63	25.15	22.97	6.16	20.84	0.81	8.58

Source: *China Yearbook of Labour Statistics*, various years.

Table 13. **Dependency Ratio in SOEs: Regional Composition, 1996**
(thousands and percentages)

Province	Employees	Retirees	Dependency Ratio (%)	Difference from Average Ratio (%)
Total	7 4043	18 169	24.54	
Beijing	2 259	791	35.02	10.48
Tanjin	1 406	498	35.42	10.88
Hebei	3 611	751	20.80	-3.74
Shanxi	2 622	503	19.18	-5.35
Neimenggu	2 032	350	17.22	-7.31
liaoning	5 050	1 412	27.96	3.42
Jilin	2 783	548	19.69	-4.85
Heilongjiang	4 827	1 172	24.28	-0.26
Shanghai	2 334	1 129	48.37	23.83
Jiangsu	3 904	922	23.62	-0.92
Jejiang	1 804	495	27.44	2.90
Anhui	2 443	550	22.51	-2.03
Fujian	1 262	310	24.56	0.03
Jiangxi	2 242	447	19.94	-4.60
Shandong	4 412	751	17.02	-7.52
Henan	4 377	839	19.17	-5.37
Hubei	3 792	771	20.33	-4.21
Hunan	3 113	786	25.25	0.71
Guangdong	3 477	952	27.38	2.84
Guangxi	1 626	344	21.16	-3.38
Hainan	645	207	32.09	7.55
Sichuan	4 831	1 408	29.15	4.61
Guigou	1 181	300	25.40	0.86
Yunnan	1 543	468	30.33	5.79
Xizang	54	13	24.07	-0.47
Shanxi	2 231	470	21.07	-3.47
Gansu	1 00	309	22.07	-2.47
Qinghai	345	98	28.41	3.87
Ningxia	404	88	21.78	-2.76
Xinjiang	2 032	587	28.89	4.35

Source: *China Yearbook of Labour Statistics*, 1997.

As of end–1996, 73.6 million urban workers (50 per cent of total formal workers) and 19.7 million (or 61 per cent of) retired workers were participating in new pension programmes at different levels. Of those totals, 56.5 million workers and 14.7 million retirees were in SOEs.

Although improved, the pension system is still not viable. Enterprises with more pensioners still make a large contribution to the pension pool and are still responsible for most of the payments administration and the health and housing needs of pensioners. More generally, viable enterprises in places with a large concentration of pensioners could find their competitiveness eroded because of their large contributions to the pool. An additional problem is that the pooling system still fails to make pension benefits portable from one locality to another, hampering labour mobility and impeding SOE reform. Individual accounts are, at the moment, only notional: workers' contributions are used to pay existing pensioners, rather than accumulating in workers' individual accounts.

In 1995 the government articulated a plan for a unified pension system that would treat all enterprises and workers equally. The government has proposed two models, one emphasising individual accounts and the other a larger social component. Local authorities have been allowed to introduce one of the two pension schemes or any combination of their features, which has resulted in a myriad of incompatible schemes across the country (World Bank, 1997*e*)[19].

Medical Care

Providing medical care to its employees and retired workers is part of the responsibility of a state enterprise. Medical care is paid as part of non–operating expenditures, like the pension payment. The recent reform of health care is designed to increase the responsibility of individuals for small expenditures in order to reduce the SOE costs.

Under the old system, only half of China's urban population received free health care — employees in state enterprises and in the other state units. Urban workers in other sectors and their families received at best partial reimbursement for medical expenses, and most migrant workers and peasants received no reimbursement at all[20].

The enterprise–based system of health care became financially too costly when SOE reform reduced state subsidies in the 1980s. For state enterprises, the health care burden is made heavier by two other factors: the ageing of SOE workers/retirees (since older people have more medical problems), and the rapid rise of medical costs. The increase of medical costs, which was of the order of 25–30 per cent annually over the 1990s, stems from an effort to make hospitals financially more self–supporting. Traditionally, it was a common practice to overprescribe medicine and tests to patients covered by public schemes, since hospitals were not allowed to raise fees for services (Yatsko, 1997*a*).

Starting in 1994, the government launched experimental health programmes in two cities, Zhenjiang in Jiangsu and Jiujiang in Jiangxi, that provide basic medical care for state and non–state workers. The idea is to lessen the financial burden of SOEs and the government by introducing worker contributions. In 1996 the State Council extended the experiment to 50 more cities, while others, like Shanghai, started their own experiments.

Under the pilot medical–insurance programme in Zhenjiang, the government, employers and employees share medical costs. The programme covers hospitalisation only: employees pay 1 per cent of their annual salary into a fund, while the enterprise contributes 10 per cent of a worker's annual salary. The total is then divided in two: half is put in a private account for each worker, and the other half into a public account for medical insurance. In case of hospital care, workers pay with their own savings and with the private account. Only if the cost of treatment exceeds 5 per cent of their annual salary are they entitled to share the cost with the public fund. To avoid the problem of "overtreatment" by hospitals, the medical–insurance bureau has set a ceiling on the amount of reimbursements.

The programme is a step in the direction of diminishing both waste and the growth of medical expenditures. There are two sorts of problems, however. First, newer enterprises are not willing to participate in the programme, because their workforce is usually young and they do not want to finance the health care of state enterprises where the proportion of retirees and old workers is high. Second, the transition to the new scheme may temporarily overburden many SOEs that are still required to cover current retirees' medical expenses while paying into the new programme.

Housing and Other Fringe Benefits

State workers can receive other benefits in cash or in kind from SOEs. Such fringe benefits include subsidised housing, transportation, heating, hair–cutting and bathing services, funeral expenses and pensions for survivors. They also have access to “group welfare” including enterprise–financed kindergartens, primary schools (in some large enterprises), convalescent homes, and other welfare facilities.

Part of workers’ in–kind income is counted in “non–wage costs” or “material costs” of the enterprise rather than in “welfare expenditures”. Some of this income–in–kind is paid in the form of consumer goods produced by a “sub–unit” of SOEs or as the returns to investment by SOEs in other undertakings. For example, workers in some SOEs receive rice rations from their units as extra benefits, the rice having been produced by a farm in which the SOE invested. The benefit is not counted either as part of the wage bill or as a welfare expenditure.

One of the major benefits SOE workers traditionally received from their enterprises was housing, although not all SOEs, especially the small–sized ones, were financially capable of providing their employees this service.

Housing was not evenly distributed in the state sector. The centrally–managed, large and medium–sized SOEs provided more housing subsidies to their workers than small, local enterprises. For an employee, the access to housing depended on his/her working years in the state sector and on the financial situation of his/her employer. Most SOEs required departing workers (who may remain in the state sector) to return their apartment to the enterprise. If a worker died, however, his or her family was eligible to inherit the apartment.

Employees of the non–state sector, except in some old urban collective enterprises, would normally obtain housing through the market. An employee in the non–state sector, with no access to “unit housing” would spend many times more on housing than his counterpart in the SOE sector. Private sector employers normally do not provide housing for their employees, though foreign funded companies and joint ventures may provide dormitories for their blue collar workers and housing subsidies for white collar employees.

With the cutting of government subsidies to state enterprises, however, housing benefits became a heavier financial burden. Thus, experiments have been initiated in a number of small cities in the 1980s to change the way in which housing is distributed and financed. In 1994, the State Council issued regulations to guide housing reform nation–wide, although implementation differs from city to city. The idea is to get employees to buy either their old apartments or new commercially built ones.

One example is the housing fund set up in Shanghai in the early 1990s, which covers all employees of state and non–state enterprises (reported in Yatsko, 1997*b*). To encourage employees to save for a home, 6 per cent of their monthly salaries is paid into a housing fund. The company pays an equal amount into the fund. When a worker wants to buy a home, she or he withdraws the money accumulated in a personalised amount to cover a down payment of at least 30 per cent of the purchase price. For the remainder the worker may get a low–interest, 20–year mortgage loan of up to 100 000 yuan. The participation in housing funds is limited, however, because some state enterprises are in such poor financial condition that they cannot contribute to the fund.

The incentive to buy an apartment is reinforced by the fact that the government has more than quadrupled rents for public housing: in Shanghai they reached 1.17 yuan per square meter per month in 1996. They are slated to continue to rise until they reach 15 per cent of total family income, although the cap will be less for low–income families[21]. Some "unit apartments" constructed by state agencies or enterprises have been sold at the cost–price to employees who occupy them[22]. The situation is going to evolve further, since among the reform plans is a project to commercialise all housing starting in 1998. To obviate the fact that the potential buyers are on average too poor to afford the purchase of a house, in January 1998 the central bank launched a special mortgage programme for individuals. Commercial banks have been required to reserve up to 15 per cent of their loans each year for private housing (Hajari, 1998). Thus far, mortgage demand has been sluggish, partly reflecting economic (and employment) uncertainties, partly reflecting the short maturities banks are willing to offer on mortgages (generally no more than 5 years).

State Welfare Programmes

The problem of unemployment of state employees may not be as threatening as it could be for a transition economy, partly because the reform of SOEs is proceeding gradually. In addition, the government would prefer that, so long as there is no adequate social safety net in place to take care of the redundant workers in the state sector, SOEs be required to keep them on the payroll.

The government's precarious fiscal position, however, has kept budgetary subsidies to SOEs from increasing in step with enterprise losses. Moreover, the state banks have become more reluctant to give soft loans to SOEs. Thus, the number of state enterprises experiencing financial crises has increased. Delay in the payment of wages has become commonplace. Unemployment in the state sector has been rising. The government and SOEs have been taking various measures to deal with the increasing unemployment and poverty, and to help dismissed workers to get new jobs.

In 1996 the official urban unemployment rate reached 3 per cent, involving 5.5 million unemployed workers. Unemployment actually assumes two different forms that require different policy solutions.

i) Open unemployment: those who formally register at a government agency as unemployed and apply for unemployment insurance. This form of unemployment is only a small proportion of total unemployment.

ii) Semi–open unemployment, or unemployment within the enterprise: this refers to the so–called "left–post" workers who have been identified as surplus labour in the enterprises and removed from the main production lines and currently have no work to do. They do not register, however, as formal unemployed workers to receive unemployment insurance, but prefer to remain in the enterprise counted as state workers. Thus, even if they receive only a nominal income from their enterprises, they keep the full rights in enterprise–run welfare programmes, including pensions, medical care, and housing. The left–post workers are currently the largest share in total unemployment[23].

Unemployment Insurance

The unemployment insurance scheme was introduced in 1986. It is run by the labour bureau of the provincial or municipal government, not by the enterprises. It covers employees of SOEs, although in some places like Shanghai it also extends to workers in collective enterprises and foreign joint ventures. Laid–off workers who have worked for more than one year are eligible to register and get the monthly flat insurance payment, which ranges from 50 to 75 per cent of the minimum wage, for a maximum of 24 months. By the end of 1996, 83.3 million urban workers were covered by the unemployment insurance programme, and some 3.3 million workers received unemployment benefits in that year.

Enterprises which participate in the programme are required to contribute from 0.6 per cent to 1 per cent of their total wage bill to the insurance fund. In the late 1990s the State Council was examining a plan which would require a contribution by enterprises of 2 per cent of the total wage bill and by employees of 1 per cent of their salaries. The new plan foresees an increase in the size of the payment[24]. In the meantime, though, given the choice between remaining as "left–post workers" with their enterprises or leaving to join the ranks of the officially unemployed and claim unemployment benefits, it seems that for most workers the former option remains the more attractive one. The opportunity costs of leaving the state sector are simply too high as long as most social welfare benefits remain enterprise–linked.

Labour Service Companies

Wherever possible, enterprises have been encouraged to provide temporary jobs for their "left–post" workers. Often this involves the formation of "labour service companies" that provide low wage jobs in side–line industrial production or retail trade, catering and services. Local government labour bureaux also run companies providing temporary jobs to the unemployed. Altogether, there were some 157 000 labour service companies in 1996, with somewhat more than 10 per cent run by government labour bureaux. They employed a total of 9.1 million people, including a small percentage of young first–time job seekers.

Retraining Programmes

Some SOEs provide job training for their redundant workers. In 1996 there were some 4 000 enterprise–based training programmes. These programmes offer a variety of courses, and workers may take several courses at the same time or sequentially. People can receive pay amounting to the basic wage or a part thereof during the re–training period. The Beijing General Corporation of Light Industry, a group of SOEs and one of the "model SOEs" in dealing with surplus labour, set the principle of "re–training before lay–off". The company has reportedly helped 50 per cent of its surplus workers to find new jobs (mostly in the service sector) through retraining.

The local labour bureaux also provide job training for the unemployed or provide part of the funding for enterprises' training programmes. Most of the job training programmes are open to the public, but trainees are normally assessed a fee, with fees for laid–off workers paid either by their enterprises or by the labour bureaux. In 1996 labour bureaux had roughly 3 500 training agencies.

All training programmes combined enrolled 4.25 million people in 1996, with the unemployed and people from rural areas being the two largest groups of trainees.

In mid–1997 the Ministry of Labour issued a directive calling for re–employment rates of at least 50 per cent for laid–off employees, though it remains to be seen whether “more of the same” will be sufficient to enable local labour bureaux to achieve (or exceed) that target.

Government job training programmes needs to be weighed against alternative providers in terms of effectiveness–as measured, for example, by expected earnings of post–trainees relative to their pre–training earnings. Financing of training can be (and perhaps should be) separated from actual provision. The latter needs to be as market–responsive as possible, and government training institutes are often out of touch with market needs. Better labour market information could help remedy that deficiency. Another possibility would be to pursue an approach similar to that of the UK’s Training and Enterprise Councils (TECs), established in 1988. The TECs provide training services and promote small business development at the local level. Each TEC enters a contract with the national government which provides funding while the TEC assesses skill needs in the local labour market and develops a plan to secure quality training tailored to those needs, contracting out the provision of that training (Leigh 1992). There are other models involving various degrees of private–public collaboration in the provision of training services–e.g., the skills development centre of the Penang Development Corporation in Malaysia.

Early Retirement and Severance Payments

Early retirement is mainly designed for workers who are 5 years or less away from the legal retirement age. The programme allows eligible individuals, male or female, to leave SOEs (perhaps to pursue a new job) with the security of regular income of 70–80 per cent of their previous basic salary (without bonus). People who choose this programme continue to be covered by medical insurance and other insurance for state employees. When first introduced, the programme attracted many participants and the financial burden on SOEs quickly escalated. As of 1996, the amount paid out by SOEs in “early retirement” benefits was roughly 3.5 billion yuan ($420 million), or about 8 per cent of the amount paid out for regular retirement pensions.

Another inducement to departure from SOEs is the provision of severance pay. The severance pay, set by the central government, should in principle be the equivalent of 3 years’ wage income, based on the previous average wage (including bonus) of the area (city) where the worker worked. Once this payment is received, the worker is no longer eligible for pension, medical care and other benefits. All financial obligations of the previous employer are terminated. This official rate of severance pay is high by comparison with most other countries, including OECD countries, and in practice the size of severance payments is apt to be considerably smaller — e.g., in Shenyang, redundancy pay is an estimated $1 200, or approximately 2 years’ average wage in SOE manufacturing enterprises (Kynge, 1998).

Severance pay linked to voluntary departure creates the familiar adverse selection problem mentioned earlier, where the most qualified and capable workers are likely to leave and the least qualified and capable to stay. There are two negative features of such voluntary schemes: *i)* severance pay offers will generally overcompensate workers who leave, since if the compensation offered were lower than the worker’s expected welfare loss from leaving the state sector he/she would better off staying (Rama, 1997), and *ii)* state enterprises may suffer worse productivity performance after implementing the programme than before. Also, as mentioned above, if severance payments are made in a lump sum, the financial burden on the enterprises (or government) could be very large. Phased payment can mitigate this problem (see Nunberg, 1989).

V. POLICY PRIORITIES

The process of SOE reform in China is gaining momentum, but the implications for the large portion of the urban labour force employed in SOEs remain worrying for the government. A number of institutional and policy measures are being put in place at both the central and local government levels in an effort to smooth the labour market adjustments. Perhaps most important are measures: *i)* to accelerate private sector job creation, *ii)* to minimise the duration of unemployment of workers leaving state employment and to provide adequate income support during unemployment, *iii)* to equip redundant SOE workers with skills employable outside the state sector, and *iv)* to ensure that state employees can transfer their pension and medical insurance coverage to non–state employers.

Given the differences across regions and localities in terms of labour force profiles, a certain degree of local differentiation in the solutions is appropriate and may help reduce resistance to reform implementation. There is a risk, however, of conflicting interests between local and central authorities in some areas (e.g., in the design of pension schemes and management of pension funds, as well as in the appropriate fiscal measures to finance other programmes).

Promoting Further Development of the Non–State Sector

In addition to the fact that economic growth in general can provide better conditions for pursuing reforms, the development of the non–state sector is the most important condition for a smoother transformation of state enterprises. Evidence cited above suggests that, where the non–state sector has reached a “critical mass” (perhaps 30 per cent of regional GDP), the re–employment of redundant state workers becomes much easier. Also, strong local competition from non–state enterprises should serve to accelerate restructuring of those SOEs that stand a chance of survival. In coastal provinces like Guangdong and Hainan, where there is a dynamic non–state sector, many SOE employees have already left voluntarily to join non–state companies offering higher pay. Also, the revenue flow from the dynamic non–state sector makes it easier for local government to mobilise real resources to compensate state workers who are facing unemployment and a fall in their incomes. The labour market will also develop further with the growth of a competitive non–state sector.

Measures to promote further development of the non–state sector include removing discrimination in access to bank credit against the private sector, in terms of either interest rates or credit quotas, and removing remaining barriers for non–state enterprises to enter industries that are not ‘natural monopolies’ but are still monopolised by SOEs.

Encouraging More Joint Ventures and Privatisations

There is evidence that joint ventures with existing SOEs, either by foreign investors or domestic non–state companies, are an effective way of restructuring SOEs. Current problems faced by SOEs are not only caused by institutional defects, but also by obsolete technology and lack of financial resources to upgrade it. Joint ventures bring institutional changes (including management reorganisation) and investment in new technology.

Creating more joint ventures would be aided by developing further capital markets and removing restrictions to asset transactions. More transparent regulations on labour–management relations would also help to avert labour disputes that may obstruct the joint venture.

As has been seen, the joint venture agreement may contain provisions for those SOE workers not to be transferred to the new venture to receive retraining (or preferably lump–sum payments that could be used for that purpose). Since the foreign partner would need to cover most of the costs associated with redundancies, and since the benefits of having a smaller, more productive workforce should be reflected in the market valuation of the joint venture, the foreign partner's equity contribution would need to be adjusted accordingly. In the case of an outright acquisition of the SOE by a non–state enterprise, the cost of any labour redundancy package could be deducted from the negotiated acquisition price.

Advancing Social Security Reform

Social security reform, including pension reform, medical insurance reform and unemployment insurance reform, are moving in the right direction and have achieved significant progress. A social security system de–linked from the individual enterprise and ultimately covering both the state and non–state sector is crucial to increasing labour mobility, hence labour market flexibility.

However, the system put in place is not without drawbacks. The main problem seems to be the financial sustainability of the reformed social security programmes. A straightforward example is the pension reform. By means of pooling, state enterprises are now sharing the burden of pensions with other enterprises, with the state and also with workers who, according to the new pension schemes, make a contribution out of their salary. Although the new system based on accumulation is designed to alleviate the SOE burden for pension costs, the transition from the old pay–as–you–go system can impose a double burden on SOEs. They are expected to pay their contributions to the common pension pool while continuing to pay pensions directly to their current retirees. Indeed, it has been reported that in certain area, such as Shanghai, funds collected in personal accounts end up being used to finance pensions to current retirees, as in a PAYG system (White, 1997).

Also, the new social security schemes affect state *versus* non–state enterprises, and older *versus* younger enterprises (the latter distinction often overlaps the first) in different ways. State enterprises contribute less than they receive, due to their high numbers of laid–off and retired workers. New and non–state enterprises are in the opposite situation, with those enterprises paying effective subsidies to the state sector. This is presumably only a transitional problem, however.

A universal unemployment insurance scheme to which both public and private enterprises are required to contribute would go a long way towards securing a safety net for the newly unemployed. To be effective, however, the other pieces of the picture need to be in place: vigorous job creation in the non–state sector and the assurance that laid–off state workers will not lose other social benefits (like medical insurance and pension contributions). While unemployment benefits need to be adequate to avert extreme hardship on the part of laid–off workers, the scheme must not be so generous (either in size or in duration of payments) as to undermine incentives to seek swift re–employment.

Expanding Training

Expansion of subsidised training for the unemployed will also be needed. As with all such training programmes, it is important to target the training as closely as possible to the needs of the job market, which is more likely to mean encouragement of greater training effort by private sector employers (or training service providers) than expansion of government training institutes.

Also important, training should involve enterprise managers, who need new skills to operate in the changing regulatory environment — while their main function was once limited to the production area, managers are now required to have financial, marketing and personnel skills.

Addressing Problems of "Mega–Enterprise" Cities and Regions

One of the hardest parts of SOE reform is to find a solution for "mega–enterprise" cities or regions, where one or a few troubled SOEs dominate the local formal labour market. The bankruptcy of "mega–enterprises" would cause enormous hardship, especially if inter–regional labour mobility remains limited. In such cases, there may be little alternative to transfers from the national budget (or a national unemployment insurance fund) to provide a safety net for displaced workers. If the financial support is not to be long–term, special efforts may be needed to encourage greater private investment in those regions and localities. Experience from other countries suggests, however, that if certain basic factors — like sound infrastructure, a capable labour force, and/or a rich natural resource base — are lacking, government tax or other incentives have little effect in attracting investment to underdeveloped areas.

Concluding Observations

Maintaining a high rate of employment through the coming period of intensive state enterprise reform is one of the biggest challenges facing the Chinese government. It is important for both economic and social reasons. Large reductions in the workforce of many SOEs can be anticipated, so strong employment creation in the non–state sector will be crucial to the rapid reabsorption of displaced SOE workers. In addressing the labour market and social aspects of SOE reform, the government faces two difficult dilemmas. The first relates to redesigning the social safety net: on the one hand, the government must socialise the safety net, delinking pensions and other social benefits from individual SOEs, in order to lessen the financial burden and facilitate labour force redeployment; on the other hand, it must take care not to raise significantly the costs of hiring to non–state enterprises in the form of added social security taxes. To do so would discourage the private job creation needed to re–employ surplus state workers. The second dilemma relates to designing departure programmes for SOE workers: who should leave and who should stay? On the one hand, a 'voluntary departure' scheme might be preferred as a way of securing worker co–operation with downsizing; on the other, there is the adverse selection problem and the risk that the government may be overly generous in its severance pay. The costs of retaining workers with poor employment prospects need to be weighed against the costs of retraining them to enhance those prospects. A satisfactory resolution of these dilemmas is critical to restructuring the SOE labour force at minimum social cost. This suggests some promising candidates for further policy research on China's SOE reform.

NOTES

1. Several sources report on different estimates of surplus workers given by enterprise managers, central government officials and other Chinese interlocutors. See, for instance, World Bank (1993), World Bank (1996*a*), and Knight and Song (1995).
2. See "Can China Avert the Crisis?" *Business Week*, March 16, 1998.
3. An experimental "shareholding" state corporation was launched in 1988 and allowed 10 per cent of shares to be sold to individuals; Fan (1995).
4. Not all SOEs are likely to survive after restructuring, however, and the practice to 'induce' employees to buy shares may involuntarily put their savings at risk.
5. The idea that the way conglomerates are being formed does not reflect the original plan is expressed by one of the plan initiators, the Chinese economist Wu Jinglian; see Gilley (1998).
6. Collective enterprises are actually considered part of public sector enterprises. However, there are important differences in the way state–owned and collective enterprises operate, so that collectives are included in the non–state sector. See Broadman (1995).
7. According to some researchers, rural reforms are an example of reforms not planned by the central government. See Wing Thye Woo (1994).
8. One of the major area of progress has been the development of a "collective shareholding system" in TVEs, which involves redistribution, up to 50 per cent, of property rights in the form of shares among members of the community. See Chen, 1994.
9. See also UNDP (1996) which lists a series of reasons for surplus labour that emerged from a survey of enterprises carried out in February–March 1995. These are: decline of market demand for products; technological and organisational changes; obligation of SOEs to absorb workers from the labour market; and poor quality of labour.
10. In the Chinese government's terminology, "labour" refers to workers, "personnel" refers to government officials or staff of government institutions.
11. From now on, we use state employees to indicate all staff and workers in the state sector and state workers to refer only to workers in SOEs.
12. Fan (1995) reports that the overall average level of education of the work force of China has risen from 5 years in 1978 to 8 years in the early 1990s. In general, the education level of urban workers, especially the state workers, is higher than the overall average because most illiterate and lower educated workers are in the rural sector. The distribution of employment by education (see Bian, Yi, 1994; Knight and Song, 1994) is:

	Overall	Urban
Higher education (college and above)	1.9	12.41
Professional school	—	11.07
High school	11.1	24.89
Middle school	32.35	36.61
Primary school	37.8	10.32
Illiterate or semi–literate	16.9	1.07

13. The estimate of surplus labour made by government officials has not changed in the past few years. As an example, it is consistent with the evaluations cited in section 1 of this paper and reported in 1994 by the *Economic Evening Paper*, Nov. 29: “According to the State Commission of Economic System Restructuring, there are over 30 million surplus labour in SOEs; in many industries, over 30 per cent of workers are ‘surplus’; in some industries, the rates reach over 50%”. According to a 1995 study by the researchers of the Economic and Development Research Center of Shanghai Municipal Government, about 50 per cent of total workers of SOEs in Shanghai should be accounted as surplus (Fan, 1995). Hussain and Zhuang (1994) find evidence for substantial labour slack in the fact that the elasticity of employment with respect to output in SOEs is low compared to values found for market economies.

14. According to the C*hina Daily Business Weekly* (2 November 1997), an additional 5.6 million workers were laid off in the first half of 1997.

15. A detailed sectoral breakdown of surplus workers by manufacturing industry is not available. Fan (1995) found a higher than average percentage of redundant workers in steel industry and textile industry.

16. Shanghai has a booming non–state sector, which has lessened the problem of redeploying surplus labour from SOEs. For example, as Table 2 shows, state employees as a share of total urban workers declined very steeply in Shanghai from 1980 to 1996, from 79 to 69 per cent, the largest drop of any province.

17. The cost of housing provided by SOEs to staff members is not included in this category.

18. This is what happened to the pension funds built up from 1951 to 1966; World Bank (1996*b)*.

19. Recently, the World Bank has proposed a three–pillar system that combines social pooling with funded individual accounts. The first pillar would provide a basic pension to keep retirees above the poverty line, with the same basic pension graded only by length of service and a contribution rate of around 9 per cent of enterprises’ wage bill. The second pillar would comprise mandatory, fully funded individual accounts paid by an 8 per cent contribution rate split equally between workers and enterprises. The third pillar would be a supplementary pension, which employers could choose to provide or individuals could choose to save. Pension funds and insurance companies would offer these accounts.

20. In rural areas, when agricultural communes were transformed into the household responsibility system, the financial base of the co–operative medical system was weakened. See World Bank, 1997*b*.

21. Fan (1995) calculates that an urban household who lived in an average apartment of 24.8 square meters in 1993 received 900–1 620 yuan housing subsidy per year, or 27.8–49.7 per cent of average total cash wage income (3 266 yuan) of a state employee.

22. The sales of the apartments to SOE employees are normally discounted for working age, seniority level and other factors.

23. Fan (1995) and UNDP (1996) count an additional form of disguised unemployment, which they call “in–job unemployment”. It refers to workers not identified as surplus labour but whose work is estimated by enterprise managers to be unnecessary to obtain the present level of output. Reported estimates of “in–job” surplus labour are as high as 19 per cent.

24. Information on the new unemployment insurance programme comes from an interview with the Chinese Labour Minister Li Boyong, reported in the *International Herald Tribune*, March 9 1998.

BIBLIOGRAPHY

Yi, B. (1994), "The New Features of China's Working Force Structure", *Entrepreneur Daily*, Oct. 27.

Broadman, H.G. (1995), "Meeting the Challenge of Chinese Enterprise Reform", *World Bank Discussion Paper* No. 283, Washington, D.C.

Byrd, W.A. and Q. Lin (1990), *China's Rural Industry: Structure, Development, and Reform*, Oxford University Press.

CCCCP, (1993), "Decisions on Economic Reform and Development", Central Committee of the Chinese Communist Party, Third Plenary Session of the Fourteenth Party Congress, October.

Cao, Y., Y. Qian, and B.R. Weingast (1998), "From Federalism, Chinese Style, to Privatization, Chinese Style", CEPR Discussion Paper Series, No. 1838, March.

CASS Sociology Research Group, (1995), "Analyses and Predictions of China's Society: 1994–95", *Management World*, No. 1.

Chen, K., H. Wang, Y. Zheng, G. Jefferson and T. Rawski (1988), "Productivity Change in Chinese Industry: 1953–1985", *Journal of Comparative Economics*,Vol. XII.

Chen, Y. (1994), "Current Situation of Employment and Policy Proposals", *China Labor Daily*, Aug. 18.

Diao, X. (1989), "An Analysis on China's Dual–Track Economy" (in Chinese), China Development and Reform Journal, No. 2, 12–20.

Economist Intelligence Unit (EIU) (1998), *Country Report: China*, 1st Quarter, London.

Fan, G. (1993), "Two Kinds of Reform Costs and Two Approaches to Reform" (in Chinese) *Jingji Yanju* (Journal of Economic Research), Vol.1.

Fan, G. (1994), "Incremental Changes and Dual–Track Transition: Understanding the Case of China", *Economic Policy,* December.

Fan, G. (1995), "Labour Market Aspects of State Enterprise Reform in China", manuscript, August.

Fan, G. and W.T. Woo (1993), "Decentralized Socialism and Macroeconomic Stability: Lessons from China", Working Papers No. 112, World Institute for Development Economics Research (WIDER), The United Nations University, July.

Fleisher, B.M., Y. Yong and S.M. Hills (1997), "The Role of Housing Privatization and Labour–Market Reform in China's Dual Economy", *China Economic Review*, Vol. 8(1), Spring.

Freeman, R.B. (1993), "Getting Here from There. Labor in the Transition to a Market Economy", in Bertram Silverman *et al.*, *Labor and Democracy in the Transition to a Market System*, M.E. Sharpe, Armonk, NY.

Gelb, A., G. Jefferson and I. Singh (1993), "The Chinese and East European Routes to Reform", manuscript, NBER Eight Annual Macroeconomics Conference, April.

Gilley, B. (1998), "Man With The Plan", *Far Eastern Economic Review*, May 21.

Hay, D., D. Morris, G. Liu, S. Yao (1994), *Economic Reform and State–owned Enterprises in China, 1979–87*, Clarendon Press, Oxford.

Hajari, N. (1998), "The Chinese Dream", *Time*, April 6, Vol.151, No. 13.

Hussain, A. and J. Zhuang (1994), "Impact of Reforms on Wage and Employment Determination in Chinese State Enterprises, 1986–91", London School of Economics, Programme of Research into Economic Transformation and Public Finance, EF 12.

Institute of Economic System Reform (1997), "Investigation on Small Enterprise Reform in Hebei, Shandong, Zhejiang, and Jiangsu Provinces", Beijing, May.

JEFFERSON, G., T. RAWSKI AND Y. ZHENG (1992), "Growth, Efficiency and Convergence in China's State and Collective Industry", *Economic Development and Cultural Change*, Vol. 40, No. 2.

JEFFERSON, G. AND T. RAWSKI (1994), "How Industrial Reforms Worked in China: The Role of Innovation, Competition and Property Rights", Paper presented at the World Bank Annual Conference on Development Economics, Washington, D.C., April 28– 29.

KORNAI, J. (1990), "The Road to a Free Economy, Shifting from a Socialist System: The Example of Hungary", New York, W.W.Norton and Company.

KYNGE, J. (1998), "Two–speed China Emerges as State Factories Are Shut or Sold", *Financial Times*, London, 16 June.

LEIGH, D.E. (1992), "Retraining Displaced Workers: What Can Developing Countries Learn from OECD Nations?", Working Paper No. WPS946, Population and Human Resources Department, The World Bank, August.

LI, Y. (1992), "Changes in National Income Distribution" (in Chinese) *Jingji Yanju* (Journal of Economic Research), Vol. 7.

MA, J. AND H–K. KIM (1992), "External Condition or Ownership: An Adjustment Cost Approach to Enterprises Comparison in China", manuscript, Georgetown University.

MURRELL, P. (1992), "Evolutionary and Radical Approaches to Economic Reform", *Economics and Planning*, 25: 79–95.

NORTH, D. (1990), *Institutions, Institutional Change and Economic Performance*, Cambridge University Press, Cambridge.

NUNBERG, B. (1989), "Public Sector Pay and Employment Reform: A Review of World Bank Experience", *World Bank Discussion Paper* No. 68, Washington, D.C.

PERKINS, F., Y. ZHENG AND C. YONG (1993), "The Impact of Economic Reform on Productivity Growth in Chinese Industry: A Case Study of Xiamen Special Economic Zone", *Asian Economic Journal*, Vol. 7, No. 2.

QIAN, Y. AND C. XU (1993), "Why China's Economic Reforms Differ: The M–form Hierarchy and Entry/Expansion of the Non–state Sector", *The Economics of Transition*, 1(2), June.

QIU, X. AND D. WAN (1995), "China's Economy: Retrospects of 1994 and Prosects for 1995", *Management World*, No. 1.

RAISER, M. (1995), "Industrial Reforms in China: State–owned Enterprises Between Output Growth and Profitability Decline", Kiel Working Paper No. 672. Kieler Arbeitspapiere.

RAMA, M. (1997), "Efficient Public Sector Downsizing", *Policy Research Working Paper* No. 1840, The World Bank, November.

SACHS, J. AND W.T. WOO (1994), "Structural Factors in the Economic Reforms of China, Eastern Europe and the Former Soviet Union", *Economic Policy*, April.

SHI, S. AND Q. LIANG (1995), "Imperfection of the Safety Net", *Workers' Daily*, 3, 8.

SICHAN RESEARCH TEAM (1995), "Analyses of Difficulties Faced by the Large and Medium–sized SOEs", *Gongye Jingji Yanjiu* (Journal of Industrial Economics), 5.

SONG, C. (1997), "Reemployment: A Difficult Issue", *Qiye Guanli (Enterprise Management)*, May.

SPC (STATE PLANNING COMMISSION) (1995), "Analysis of Present Urban Household Income", *China Market Economy Daily*, 1995, 1,24.

TANG, Z. (1992), "Decline of Profits and Reproduction Capability of State Enterprises" (in Chinese), *Jingji Yanju* (Journal of Economic Research), Vol. 7.

UNDP (1996), *China: Urban Employment Promotion and Re–employment Policies*, Report prepared under UNDP Technical Support Services 1 (TSS1).

WALDER, A.G. (1987), "Wage Reform and the Web of Factory Interests", *China Quarterly*, 109.

White, G. (1997), "Social Security Reforms in China's Economic Transition: Towards Market Socialism?", *Mondes en Développement*, Vol. 25, No. 99.

Woo, W.T., W. Hai, Y. Jin and G. Fan (1994), "How Successful Has Chinese Enterprise Reforms Been? Pitfalls in Opposite Biases and Focus", *Journal of Comparative Economics*, June.

World Bank (1993), *China. New Skills for Economic Development*, Report No.11785–CHA, November.

World Bank (1996*a*), *China. Reform of State–Owned Enterprises*, Report No.14924–CHA, June.

World Bank (1996*b*), *China. Pension System Reform*, Report No. 15121–CHA, August.

World Bank (1997*a*), *China's Management of Enterprise Assets: The State as Shareholder*, Washington, D.C.

World Bank (1997*b*), *China 2020: Development Challenges in the New Century*, China 2020 Series, Washington, D.C.

World Bank (1997*c*), *Financing Health Care: Issues and Options for China*, China 2020 Series, Washington, D.C.

World Bank (1997*d*), *Sharing Rising Incomes: Disparities in China*, China 2020 Series, Washington, D.C.

World Bank (1997*e*), *Old Age Security: Pension Reform in China*, China 2020 Series, Washington, D.C.

Xiao, G. (1991), "State Enterprises in China: Dealing with Loss–makers", *Transition* (The World Bank), Vol. 2, No. 11, Dec.

Xie, P. (1993), "Monetary Policy during the Transition towards the Market Economy", Working Paper, The People's Bank of China, April.

Yatsko, P. (1997*a*), "Bitter Medicine. China Tries to Create a Medical–Insurance Safety–Net", *Far Eastern Economic Review*, October 16.

Yatsko, P. (1997*b*), "Cracks in the Ceiling. China Struggles to Wean Workers off Free Housing", *Far Eastern Economic Review*, October 23.

You, L. and S. Wang (1997), "Investigation on 'Letting Go Small SOEs'", *Jingji Yankiu Cankao (Economic Research References)*.

Yu, X. (1995), "Features of Rural Labor Migration over Regions", *The Reform*, No. 2.

Yi, B. (1995), "Is the Unemployment Insurance Fund Sufficient?", *Workers' Daily*, 3, 15.

Zhang, R. and Z. Huang (1994), "A Study on Housing Subsidy to Urban Residents", in Zhao R. and Griffin (eds.), *A study of income distribution in China*, China Social Sciences Press, Beijing.

Zhu, L. (1994), "The Impacts of Non–Agricultural Activities on the Income Distribution of Rural Households", in *A Study of China's Household Income*, Chinese Social Sciences Press, Beijing.